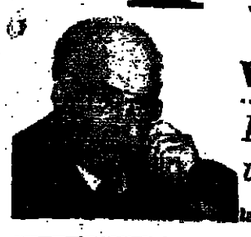
FINANCIAL TIMES



War and peace
How Kohl stirred up a storm
Ian Davidson, Page 10

Nuclear power
But not in Japan, please
Technology, Page 20

Spanish inquisition
The scandals and the judges
Page 3

North Korea
Famine sends a warning
Page 6

World Business Newspaper

WEDNESDAY FEBRUARY 7 1996

Jaguar lays off up to 2,200 workers after US orders fall

Jaguar, the luxury UK carmaker owned by Ford, said it would lay off most of its 2,200 production workers for a week to reduce stocks of unsold cars. The company blamed the stoppage mainly on lower sales in the US, its biggest market. It said it had no plans for further short-term lay offs or redundancies. Jaguar's move surprised analysts as it followed optimistic sales figures last year. Page 12 and Lex; Hopes for tax cuts, Page 8

Spanish murder fuels poll violence fears: *Fears of a resurgence of Basque violence during the* Spanish general election campaign escalated when the brother of a Socialist MP was murdered on a San Sebastian street. Page 3

Muoi signals Vietnam leadership changes

Vietnam's Communist party must recruit younger people to top *positions, according to* Do Muoi (left), the party leader, in an apparent signalling of a generational change in the *country's leadership.* Muoi, who also indicated that future leaders must have a better understanding of economics and technology, is understood to have decided to step down at a party congress around June when *the country's economic reform programme will be* reviewed. His retirement is likely to have a knock-on effect in the party leadership. Page 12

Universal Studios plans new theme park: A $1.6bn theme park starring cinema favourites is to be built in Osaka, Japan, through a joint venture which combines the talents and financial power of Canada's MCA entertainment group, Britain's Rank Organisation and Japanese investors. The scheme marks the first overseas venture by Universal Studios Recreation Group. Page 12

US budget agreement 'within reach': President Bill Clinton and Senator Bob Dole insisted that a balanced budget agreement was *within reach in the light of new policy proposals* agreed by the nation's governors. Page 4

Yeltsin's former press secretary criticised: Russian officials condemned president Boris Yeltsin's former press secretary for revealing a compromising *glimpse of life in the Kremlin in a forthcoming* book. Page 2

Johnson Matthey expands in US: Johnson *Matthey, the precious metals and engineering tech*nology group, underlined the strategy of expanding its electronic materials business with the $40m purchase of the circuit board manufacturing operations of Cray Research, the US computer *group.* Page 19

Warning for Europe from Asian delegation: An Asian delegation arriving in Rome for two days of preparatory *talks on next month's summit* between European and Asian leaders is carrying a stern warning about raising delicate issues such as human rights and democracy. Page 6

Allied Domecq issues second warning: A second profits warning in seven months from Allied Domecq heightened resentment in the City of London towards the international drinks and retailing group, *prompting sharp downgrades and fears of a* dividend cut. Page 13

London & Continental Railways, the favoured *bidder for the £3bn ($4.5bn) English Channel tunnel* high-speed rail link, is negotiating the final details of the package required to clinch the deal, according to rail industry managers close to the bid. Page 8

Medeva withdraws from Germany: *Medeva,* the acquisitive pharmaceuticals company, has withdrawn from Germany and the oncology market with the disposal of Ribosepharm, its cancer drug business. Page 19

Uproar over gas chief's retirement: Uproar over the retirement package for Cedric Brown, British Gas's departing chief executive, overshadowed the company's plan to split itself in two. Page 13

STOCK MARKET INDICES

New York lunchtime		
Dow Jones Ind Av	5,436.49	(+28.9)
NASDAQ Composite	1,086.91	(+3.57)
Europe and Far East		
CAC40	1,988.47	(+2.88)
DAX	2,428.28	(+9.27)
FT-SE 100	3,747.5	(+0.9%)
Nikkei	20,751.15	(+97.77)

US LUNCHTIME RATES

Federal Funds	5¾%
3-mth Treas Bills: Yld	4.971%
Long Bond	110⅝
Yield	8.122%

OTHER RATES

UK 3-mo Interbank	6⅞%	(same)
UK 10 yr Gilt	98⅝	(98¼)
France: 10 yr OAT	105.3	(104.81)
Germany: 10 yr Bund	99.35	(99.09)
Japan: 10 yr JGB	111.204	(111.283)

NORTH SEA OIL (Argus)

Brent 15-day (Mar)	$18.62	(same)

GOLD

New York Comex		
Apr	$414.6	(415.9)
London:		
close	$411.9	(414.5)

DOLLAR

New York: lunchtime		
£	1.54025	
DM	1.47305	
FFr	5.062	
SFr	1.20175	
Y	105.435	
London:		
£	1.5404	(1.5327)
DM	1.4718	(1.4693)
FFr	5.0576	(5.0555)
SFr	1.2015	(1.2005)
Y	105.57	(105.12)

STERLING

DM	2.2671	(2.252)
Tokyo close:		Y 105.3

Abroad	LBK 220	Germany	DM4.00	Lithuania	Lts 15.00	Qatar	QR13.00
Austria	Sch37	Greece	Dr400	Lux	Lf75	S.Arabia	SR12
Bahrain	Din1.250	Hong Kong	HK$20	Malta	Lm0.65	Singapore	S$4.30
Belgium	BFr75	Hungary	Ft230	Morocco	MDh15	Slovak Rp	Sk65
Bulgaria	Lev130.00	Iceland	IKr230	Neth	Fl 4.75	S. Africa	R12.00
Cyprus	C£1.20	India	Rs75	Nigeria	Naira60	Spain	Pta250
Czech Rp	Kc60	Israel	Shk7.90	Norway	NKr20.00	Sweden	SKr20
Denmark	DKr16	Italy	L3200	Oman	OR1.50	Switz	SFr3.70
Egypt	E£5.00	Japan	Y500	Pakistan	Rs40	Syria	S£65.00
Estonia	EKr 22	Jordan	JD1.50	Poland	Zl 5.50	Tunisia	Din1.750
Finland	FM16.50	Kuwait	Fils650	Portugal (inc'land)	Es240	Turkey	L70,000
France	FFr11.50	Lebanon	LL3,000			UAE	Dh12.00

 No 32,902 Week No 6

LONDON · LEEDS · PARIS · FRANKFURT · STOCKHOLM · MADRID · NEW YORK · LOS ANGELES · TOKYO

Boutros Ghali implores members to pay up and offers cut in US dues

UN chief warns of imminent bankruptcy

By Michael Littlejohns in New York and Bruce Clark in London

Mr Boutros Boutros Ghali, the UN secretary-general, yesterday implored the US and other members to pay their dues to the world body and stave off the *imminent prospect of its financial* collapse.

In a new proposal to solve the worst cash crisis in the UN's 50-year history and lessen opposition in the US Congress, he also proposed that Washington's contribution be cut from more than 25 per cent to 15 or 20 per cent.

But Mr Boutros Ghali, while warning that staff cuts at the 10,000-strong UN secretariat were inevitable, stopped short of endorsing a plan by his chief *financial officer for the immedi*ate axing of over 1,000 posts.

"The financial crisis has brought the UN to the edge of insolvency," he told a UN finance *committee, adding that he would* appeal to every debtor nation to provide him with a timetable for settling its arrears.

The effects of the cash shortfall have already been felt at the UN headquarters in New York.

The 300-strong Department of *Peace-Keeping Operations,* which runs blue-helmet missions in 16 of the world's troublespots, has been told to avoid long-distance telephone calls and to prepare for *a 15 per cent cut in staff levels.*

Mr Joseph Connor, the UN's financial manager, warned this week that on present trends, the UN's cash position would begin a "deep, continuous decline" in mid-1996, leading to bankruptcy by the end of the year.

The UN faced debts of $2.3bn at the end of last year, of which the US owed $1.2bn. The secretariat has only managed to keep *functioning in recent months by* dipping into a separate account *for UN peacekeeping,* and Mr Connor has warned that this source of funding could run out soon.

Most of the US arrears reflect *the reluctance of the US Con*gress to finance peacekeeping operations.

The UN currently charges the US for 25 per cent of its general *budget and 31 per cent of the cost* of peacekeeping. However, Congress has forbidden the administration to pay more than 25 per cent of peacekeeping costs.

Mr Boutros Ghali, in a bid to parry the hostility of US legisla*tors, suggested a limit of 15 or 20* per cent on the regular budget contributions of any member state. Such a ceiling "would better reflect the fact that this *organisation is the instrument of* all nations", he said.

He also proposed a special session of the UN General Assembly, before its regular meeting this autumn, to deal exclusively with the debt crisis.

However, diplomats at the UN said it was far from certain that the prospect of a lower contribution would be enough to soften US Congressional hostility. Last *month's proposals by the Euro*pean Union for a new system of calculating contributions, with Japan paying far more and the US somewhat less, have received a cool response in Washington.

Previous US administrations have rejected proposals for a reduction in their contribution on the grounds that this would mean a reduction in US influence over the organisation.

Boutros Boutros Ghali warned that staff cuts at the 10,000-strong United Nations secretariat were inevitable and added: 'The financial crisis has brought the UN to the edge of insolvency' Picture: Reuter

US set to block BA without deal on Heathrow

By Michael Skapinker in Singapore

The Clinton administration will block attempts by British Airways to form fresh alliances with US carriers unless the UK grants the US freer access to London's Heathrow airport.

Senior US officials say any *moves by BA to conclude a code*-sharing agreement with American Airlines or to increase its 24.6 per cent stake in USAir would be unlikely to be approved unless the UK government is prepared to renegotiate the countries' *bilateral aviation treaty.*

Talks on a new aviation agreement broke down last year over access to Heathrow. The UK offered a small increase in the number of flights by US airlines, but the US government rejected *the offer as inadequate.*

US negotiators in the failed talks say London was not prepared to make concessions on Heathrow because it did not, at that point, want anything in return. The US believes any *attempt by BA to conclude a US* alliance would provide it with leverage on the Heathrow issue.

A senior US official said: "It's unfortunate that our relationship, which is one of the strongest in the world, is based, in the aviation field, on the coarsest kind of horse-trading."

He said the US government believed that it had an "understanding" that greater access *would be granted to US carriers:* "That hasn't been fulfilled."

Over the past year, the US has concluded open skies agreements with nine smaller European countries. Last week, it reached a preliminary open skies agreement with Germany.

Last month, BA said it had decided not to increase its stake in USAir, which has had difficulty reducing its operating costs. US officials said that if BA had sought permission to *increase its stake, this would* have been refused.

The official said BA would also experience difficulties if it attempted to conclude a code-

Continued on Page 12
Giant airliner battle, Page 5

Russia's 'dirty money' finds Swiss home

Moscow mafia sends cash west as fear of Communist presidential election win grows

By Robert Chote in Davos and Chrystia Freeland in Moscow

Switzerland's economic problems have made some of its companies and financial institutions more willing to accept "dirty" money *from international criminal* organisations, including the Russian mafia, according to senior European police officials.

The trend coincides with predictions of a rise in money leaving Russia in coming months because of mounting fears among newly rich entrepreneurs that the Communists will win presidential elections in June.

The violent character of Russia's *emerging capitalist economy* was underscored this week when Alexei Butenko, a 26-year-old banker, was found stabbed to death in a Moscow car park. The killing was the latest in a series of high-profile murders of prominent Moscow financiers over the past year.

Law *enforcement officials* believe the protracted period of sluggishness in the Swiss economy may have made some companies less choosy about where they get their money. Some officials fear this relaxation of standards under economic pressure may inflict lasting damage to Switzerland's *law-abiding business* culture.

One international crime expert in Davos noted that the Russian mafia had also been taking an increasingly active interest in their own country's banking sector. This gave them access to sensitive and confidential information on foreign companies which could then be used to target them through protection rackets.

"Nowadays they don't rob banks, they own them," the *expert said.*

However, Mr Jules Kroll, chairman of the private sector investigation business Kroll Associates, told a session of the World Economic Forum in Davos that Switzerland had done more than any other country to crack down on money laundering and to establish links with law enforcement agencies elsewhere.

But experts argue that Switzerland's financial regulations still include some loopholes which permit money laundering, notably through unregulated fund *management businesses.*

Swiss police take comfort from the fact that the westward spread of the Russian mafia has had less impact on the level of criminal activity in Switzerland than in Austria and Germany.

But other police agencies are worried that banks dominated by the Russian mafia are increasingly interested in setting up in international financial centres. They fear that western authorities are reluctant to stand in their way in case western financial institutions are in turn prevented from setting up in Russia.

Moscow's business killings resemble the settling of scores in the criminal underworld in the *west, but in Russia violence is a* pervasive part of the developing capitalist culture. A weak and corrupt police force and the lack of enforceable contracts have bred an environment in which businessmen are regular victims of gangland-style assassinations.

BT joins German groups in third telecoms consortium

By Michael Lindemann in Bonn and Paul Taylor in London

RWE and Viag, two of Germany's largest industrial groups, plan to join British Telecommunications to create a third consortium vying for position in the German telecoms market, Europe's biggest.

The two German groups will sign a *letter of intent* to work with BT on providing telecoms services to corporate and residential clients in a move which signals a further consolidation of *the German market before the* introduction of full competition in 1998.

Under the agreement which will be formally announced today, a new company will be created to bring together the existing telecoms networks owned by RWE and Viag.

The German companies said they might *also expand their* activities to include mobile and satellite communications.

The new venture will compete directly with Deutsche Telekom, the state-owned monopoly, and a second alliance of companies which includes two of Germany's biggest companies, Veba and *Mannesmann, plus American* Telephone & Telegraph of the US and Britain's Cable and Wireless, both international telecoms operators.

The new German telecoms consortia have been keen to secure international partners to improve their chances of operating outside Germany and to take advantage of foreign operators' experience in liberalised telecoms regimes.

BT and Viag first agreed to create a joint venture, called Viag InterKom, just over a year ago, saying they look for a number of other German companies, including possibly BMW or the insurance group Allianz, to join them as shareholders.

Now that RWE is joining the existing partnership, it is thought unlikely that additional German partners will be sought. The three companies are expected to complete talks on the alliance by the middle of this year.

Executives involved in negotiations also said yesterday that there would be no exchange of *cash or equity at this stage,* and that the three companies would simply be pooling their resources ahead of full-scale liberalisation.

If completed the deal will mark a further step towards the consolidation of the German telecoms market where, just nine months ago, five of the country's biggest companies were unveiling ambitious plans to compete with Deutsche Telekom, the world's third largest telecoms operator.

The only one of the five not to have committed itself to one of the new private sector alliances is Thyssen, the steel and engineering group.

Thyssen is working with Viag in an effort to win a *49.9 per cent* stake in DBKom, the telecoms subsidiary of the federal railway system Deutsche Bahn, but together with Veba, is also the largest shareholder in E-Plus, the third German mobile phone network.

CONTENTS

News
European News 2,3
International News 4
Asia-Pacific News 6
American News 4
World Trade News 5
UK News 8
Weather 12
Lex 12

Features
Leader Page 11
Letters 10
Observer 11
Business & Em'rnt 20
Arts 9
Arts Guide 9
Crossword 21

Companies
Break-up of British Gas 14
UK 19
Intl. Companies 16-18
Intl. Cap Mkts 22

Markets
Commodities 21
FT Actuaries 28
FT/SP-A Wld Indices 32
Foreign Exchanges 23
Gold Markets 21
Int. Bond Service 22
Managed Funds 26,27
Money Markets 23

Recent Issues 32
Share Information 24,25
London SE 26
Wall St/Bonds 29-32

Survey
FT-IT Monthly Review (Separate Section)

Yeltsin may try to buy off angry voters

By John Thornhill in Moscow

President Boris Yeltsin has made spending pledges ahead of the presidential elections in June that could be worth $250 (£162) a head and may double the Russian budget deficit this year.

Seven presidential pronouncements in recent weeks have promised, among other things, to spend more on rebuilding Chechnya, pay wage arrears to government employees, and increase student grants.

A Moscow-based investment office, AIOC, has estimated Mr Yeltsin's additional spending proposals are equivalent to $250 per voter in a country where the average monthly wage is about $100.

AIOC costed the pledges at $16.5bn, which would double the government's projected budget deficit this year. That calculation was made before the government clinched a deal with striking miners over the weekend, promising a further Rbs10,400bn (£1.4bn).

The announcements have led to stark warnings from Mr Anatoly Chubais, the former first deputy prime minister and chief architect of Russia's IMF-approved stabilisation programme, that a populist spending spree could bust the budget. That could reignite inflation and "lead to a crisis on the foreign exchange and bond markets, and threaten a collapse of the banking system", he wrote in the Financial Times this week.

But, so far, Russia's infant markets have taken both wild promises and fierce warnings remarkably calmly. The rouble has held steady against the US dollar and even strengthened a little this week. Yields on government debt have also fallen to near all-time lows, albeit, it seems, partly as a result of the central bank's massaging of the market.

A big test of investors' mood will come today as the government tries to auction almost Rbs8,500bn of short-dated government paper.

"There is clearly a big push to mollify an angry electorate but I think the government understands the need to keep control of the economy and inflation," says Mr Thomas Reed, an analyst at AIOC. Part of the explanation for the tranquillity is that Russian traders draw a big distinction between words and deeds. Moreover, the president's advisers have been reassuring them the extra spending will not jeopardise the macro-economic stabilisation programme.

"Moves which give greater attention to socio-economic issues and restoration works in Chechnya are being implemented in the framework of the budget for the current time," Mr Alexander Livshits, the president's chief economic aide, said yesterday.

The IMF's specialists in Moscow are desperately trying to keep abreast of all the spending commitments but are not yet alarmed.

"As far as I am aware, I do not know of a decree or a combination of decrees which violates the budget or the fiscal and monetary programme that has been worked out with the IMF and implemented by the central bank," says one senior western economist in Moscow. "But if they go ahead and spend the additional money it will show up in all the figures fairly quickly."

The IMF will certainly demand greater comfort before approving a possible $9bn three-year loan to the Russian government. "There is a little less certainty about which way the wind is blowing and there is as yet no certainty about where we will all end up," says the economist. The government may be able to siphon money away from some parts of the budget to spend elsewhere and may try to front-load its spending in the first few months of the year.

In an interview in the Izvestiya newspaper yesterday, Mr Alexander Smirnov, head of the main directorate of the federal treasury, suggested the government had scope to increase wages in the short term by diverting money from long-term spending commitments, such as capital investment and science. "But that will simply eat up our national heritage," he said.

Mr Yevgeni Yasin, Russia's economy minister, admitted yesterday that his government was under mounting pressure to abandon its policies of fiscal and monetary restraint before June's presidential election, but said he was determined to stand firm, writes Guy de Jonquières in Davos.

He told the World Economic Forum in Davos that President Boris Yeltsin was being urged by many of his supporters to "forget his anti-inflationary promises just to win votes" by increasing spending and adopting other populist measures advocated by the Communist party.

Mr Yasin said he would resist demands to relax economic policy. "I will stand up to that pressure and I am confident that we will succeed."

The cashier has no money! said a sign last weekend at a coal mine near the town of Novokuznetsk, 3,000km east of Moscow. Some 500,000 Russian miners went on strike last week for unpaid wages

Lisbon budget increases social spending

By Peter Wise in Lisbon

Portugal's new Socialist government yesterday unveiled a "budget with a social conscience" for 1996, aimed at cutting the fiscal deficit and increasing social spending without raising taxes.

The proposals were presented to parliament with the outline of a privatisation programme designed to raise more than Es380bn ($2.5bn) in less than a year through the sale of power, telecommunication and other companies.

Opposition parties attacked some of the proposals yesterday but parties on the left and right are unlikely to vote together against the budget to defeat the centre-left government, which fell four seats short of an overall majority in a general election last October.

Mr António Sousa Franco, finance minister, has set a target of reducing the budget deficit to 4.2 per cent of gross domestic product in 1996, from 5.2 per cent last year. This falls just within plans to meet the EU monetary union requirement of 3 per cent in 1997.

He said the budget was designed to stimulate investment, lower inflation and ensure fiscal rigour, as well as reallocating resources to promote greater social justice. Among social measures, he announced the creation of a minimum national income for the country's poorest families.

The deficit cut would be achieved despite an increase in social spending to 47.3 per cent of total expenditure from 45.6 per cent in 1995. A proposal to spend Es840bn on education, 12 per cent more than last year, is the biggest planned increase.

Spending cuts are to be made in the operating budgets of some ministries including defence, foreign affairs and justice. But the deficit is largely to be reduced through increased tax revenue, forecast to grow by 7.9 per cent this year to Es5,338bn from Es4,948.6bn in 1995.

The centre-right Social Democrats, the main opposition party, yesterday questioned how the government could increase revenue so substantially without raising income or corporate taxes and by lowering some indirect taxes.

Mr Sousa Franco is placing his confidence largely in stronger economic growth. The government forecasts GDP will grow by 2.75 per cent this year, up from unofficial estimates of about 2.5 per cent in 1995. The government aims to stimulate growth by increasing state investment by 20 per cent to Es397bn, largely to be spent on transport infrastructure.

Mr Sousa Franco said privatisations planned for 1996 and 1997 included Electricidade de Portugal, the national power company, and a second tranche of Portugal Telecom, as well as cement, steel, tobacco, paper pulp companies and Banco Fomento e Exterior, Portugal's fifth largest financial group.

JESTER UPSETS COURT OF BORIS NIKOLAEVICH

By Chrystia Freeland in Moscow

Russian officials yesterday condemned Russian President Boris Yeltsin's former press secretary for revealing a compromising glimpse of life in the Kremlin in a forthcoming book.

"This is a violation of moral and professional rules and norms," Mr Grigory Karasin, a foreign ministry spokesman, said in a fierce attack on Mr Viacheslav Kostikov, who was sacked by Mr Yeltsin in late 1994.

Mr Kostikov, now Russia's ambassador to the Vatican, has written a vivid account of his two-and-a-half years behind the high red walls of the Kremlin. Tentatively titled "Parting with the President", the book has not yet been published, but excerpts in a Russian weekly depict Mr Yeltsin as an ageing autocrat surrounded by sycophantic and scheming aides.

Mr Kostikov's alleged breach of diplomatic etiquette looks tame in comparison with the Machiavellian habits of Mr Yeltsin's closest counsellors. According to Mr Kostikov, the most powerful politicians in Russia routinely assume their offices are bugged and treat the president more like a feudal lord than an elected leader. "All my telephones were tapped," Mr Kostikov writes. "All the president's aides assumed they were being monitored and if we had anything to say to each other which we did not want the Kremlin's big ears to hear, we just exchanged notes, which we later destroyed."

To lighten the paranoia, and mock the hardline aides believed to be responsible for the wire-tapping, Mr Kostikov describes an occasion when he and some of the president's liberal aides, after a few shots of vodka, impersonated the Kremlin's two leading hawks – General Alexander Korzhakov, Mr Yeltsin's chief bodyguard and confidant, and General Mikhail Barsukov, then a Kremlin security boss, but now head of the Federal Counter-Intelligence Service. "We proposed funny toasts in their names, gave evaluations, political opinions. You can just imagine what the poor workers went through who had to figure out the tape," Mr Kostikov writes.

Mr Kostikov avoids directly attacking Mr Yeltsin, but his melancholy portrait of his former boss is likely to contribute to the mounting disillusionment of Russian democrats with the man they once saw as their leader.

"Boris Nikolaevich does not have and never had any ideology, any democratic convictions of his own," Mr Kostikov writes. "Sometimes I think about Boris Nikolaevich as a tragically lonely man, especially now that the democrats have left him, the democrats who, in fact, made Yeltsin Yeltsin."

Finland aims to plug booze tax drain

By Christopher Brown-Humes in Stockholm and Reuter in Helsinki

Finland, home to some of the world's most expensive alcohol, is planning to clamp down on duty-free imports from Russia and the Baltic states because it says it is losing too much in tax revenue.

The health ministry estimates that "alcohol tourism" costs Finland around FM1bn ($220m) a year in lost taxes because the cross-border booze trade has surged since duty-free limits were relaxed after Finland joined the European Union in January 1995.

The ministry is targeting two flourishing trades in particular – alcohol bought in Russia, and the "booze cruises" between Finland and Estonia that have become popular since Estonia gained independence in 1991.

There have been reports of Finns crossing to Russia 15 times a day just to bring back their maximum allowance of 15 litres of beer and one litre of spirits each time. For some of the unemployed, who make up 17 per cent of the workforce, it has been a valuable saving or useful source of income.

More than 2m Finnish passengers a year take the three-hour ferry or 90-minute hydrofoil journey to Tallinn, the Estonian capital, combining sightseeing with a chance for some very cheap shopping.

They can hardly be blamed for their enthusiasm. Finns have to pay some of the world's highest prices because of the control exercised by Alko, the state-owned retail alcohol monopoly.

Controversially, the monopoly survived Finland's entry to the EU but its sales flagged in 1995, partly because of the impact of duty-free purchases.

The government says it wants to lower to two litres the current 15-litre allowance on beers imported after "short trips" to non-European Union countries, and introduce a new time limit defining a short trip.

Serbs break off contacts over detention of senior officers

Bosnia war crimes row deepens

By Harriet Martin in Sarajevo

The Bosnian Serbs yesterday suspended contact with the Sarajevo government following the arrest by Bosnian police of eight Serbs on suspicion of war crimes.

It was the first significant setback in the Bosnian peace process. Two senior Serb officers, General Djordje Djukic and Colonel Aleksa Krsmanovic, are among eight prisoners the Bosnian government has admitted detaining, although the Serb authorities claim 11 are missing.

Mr Carl Bildt, international civilian co-ordinator in Bosnia, expressed concern over the suspension of contact and hoped the issue would be cleared up quickly.

A Serb spokesman said: "We have decided to stop negotiations and not to go to the Moslem part any longer until we get the Serbs released. He demanded that future meetings be held on neutral ground."

The Bosnian government said yesterday it would hold the men until the International War Crimes Tribunal in The Hague had examined the evidence against them. None are among the 47 Serbs already indicted by the tribunal, but government officials are confident they have evidence to implicate at least five of the detained men in war crimes committed around Sarajevo and in eastern Bosnia.

The government has promised to release the men if the tribunal does not find a case against them. Mr Mirza Hajric, a Bosnian government official, said: "If the decision of The Hague representative is that these persons should be released then the Bosnian government will respect that decision."

Bosnian security service chief Bakir Alispahic speaking about the detained Serbs

The Bosnian government has frequently linked the issue of prisoner releases and war crimes, claiming that the Serbs have had so few prisoners to release because of their policy of killing people rather than holding them captive.

The government remains defiant about its provocative action which has for the first time raised a serious question over the future success of the peace process. Nato said the Bosnian government had agreed to abide by the decision of the tribunal, set up by the Security Council in 1993, as to whether there was enough evidence to indict the two senior officers.

But Bosnian security service chief, Mr Bakir Alispahic, declined to repeat such an assurance at a news conference in Sarajevo yesterday. "The future of these people will be in the hands of both the judicial authorities of Bosnia-Herzegovina and investigators of the International War Crimes Tribunal," he said.

● Robert Chote adds: Mr Hasan Muratovic, the Bosnian prime minister, yesterday predicted that his country could be granted full membership of the World Bank by early March, giving it access to fresh loans to help with economic reconstruction.

Mr Muratovic told the World Economic Forum in Davos that speed was of the essence in mobilising the $5.1bn three-year reconstruction package for Bosnia proposed by the World Bank and the European Union.

"We haven't received a single dollar yet," Mr Muratovic said. "That's why we expect understanding and quick support." But the proposed programme would barely scratch the surface of the $45bn worth of physical damage done to Bosnia during the war.

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EUROPEAN NEWS DIGEST

France to give rural tax breaks

The French government is to match its recent tax break initiative for deprived city zones with a new series of fiscal exemptions to try to stem depopulation in rural areas. It will give rural employers and individuals temporary relief from social security charges, increase investment allowances and reduce property taxes.

The largest farmers' union, the FNSEA, welcomed the government measures, but said more would need to be done to stop "desertification" of rural areas, which had left 20 per cent of the country's population living on 80 per cent of its land.

The union said it would use an agriculture conference to be hosted tomorrow by prime minister Alain Juppé to push for an increase in farmers' pensions and for better investment tax breaks.

France is already getting some FFr15bn ($3bn) in European Union aid in the 1994-99 period to help declining rural regions covering 17 per cent of French territory.

Mr Eneko Landaburu, the EU"s director general for regional policy, was yesterday quoted in the Libération newspaper as saying he saw little objection to France's plans for "tax-free" urban zones and for rural tax breaks because they were not sufficient to distort competition by attracting investment from other countries. *David Buchan, Paris*

Bonn rejects any delays in Emu

The German government yesterday sought to dampen speculation that it was preparing for a delay in the start of the third and final stage of European economic and monetary union beyond the planned starting date of January 1, 1999.

Mr Klaus Kinkel, the foreign minister, said Germany stood fully behind its intention to enter the third stage on the agreed date and that nobody should count on a postponement. However, Mr Kinkel also underlined that there would be no softening of the Maastricht treaty convergence criteria to determine which countries should begin Emu.

Remarks earlier this week from Mr Wolfgang Schäuble, the leader of the parliamentary group of Chancellor Helmut Kohl's Christian Democratic Union, triggered speculation that Bonn was losing its enthusiasm for Emu.

Mr Kinkel's statement yesterday made clear that while Bonn still backed Emu strongly, it would put the criteria before the Emu timetable in the event of a conflict between the two goals.

The decision on which member states would qualify for membership would be made as early as possible in 1998 on the strength of economic data relating to 1997, the German minister said. *Peter Norman, Bonn*

Beyond the catcalls, Page 10

Chechens protest as tension rises

Thousands of Chechen separatists, waving green Islamic flags, staged a protest yesterday in their capital, Grozny, as tensions again rose in the breakaway Caucasus region.

Defying Russian calls to disperse, the protestors gathered outside the presidential palace in the centre of the devastated city to demand that all of Moscow's federal forces leave Chechnya. Russian officers warned they would fire on the crowds if separatist fighters infiltrated the demonstrations to stage attacks on federal troops.

"There will be no other way out of this situation. We will decisively shoot to kill," a senior Russian commander told the Interfax news agency.

Further bloodshed in the troubled region could derail a possible peace deal which President Boris Yeltsin may unveil today following a meeting of the influential Security Council.

Russian newspapers have speculated that Mr Yeltsin may be prepared to cede a large measure of autonomy to Chechnya in an attempt to stop the fighting that has ravaged the region for the past 14 months.

But several Chechen leaders have already said they would settle for nothing less than full independence, an option which appears unacceptable to Moscow. *John Thornhill, Moscow*

Strikes resume in Sabena dispute

Workers at Sabena, the Belgian national airline, went on a one-day strike yesterday, shutting down the carrier's flights to and from Brussels.

Sabena said it "regretted" the action which it described as a "slap in the face for passengers and an attack on the commercial funds of the company". Other airlines were able to operate flights – but with some delays as the strike also affected baggage handling.

Sabena has already suffered a number of one-day strikes over management plans to freeze wages, raise working hours and bring in more staff flexibility.

The airline says the steps are necessary to spur growth and in the long run create jobs for the airline, which is 49.5 per cent owned by Swissair.

Negotiations between the two sides broke down on Friday after the unions accused Sabena of not honouring conditions agreed for the resumption of talks in January.

The action began late last year after a bitter dispute between unions and management following Sabena's decision to scrap collective wage agreements as part of a plan to make the airline profitable. Sabena had a BFr1.2bn ($39m) consolidated loss in 1994. *Reuter, Brussels*

Turks blame Greece over talks

Turkish officials yesterday blamed Greece for sabotaging a planned mediation mission to Ankara and Athens by Mr Richard Holbrooke, the US envoy, following last week's shows of force by both countries in the Aegean.

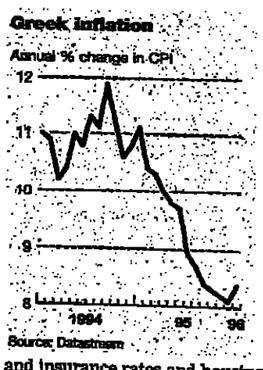
Mr Omer Akbel, the foreign ministry spokesman, said: "We were ready to receive him and we regret that he cannot come. We are sorry Greece has rejected him."

Mr Costas Simitis, the newly-installed Greek prime minister who was criticised for his handling of the crisis, cancelled meetings with Mr Holbrooke claiming they did not fit in with his schedule".

Although the US embassy in Ankara says Mr Holbrooke's visit was postponed, not cancelled, no revised date has been set for a visit. *John Barham, Ankara*

ECONOMIC WATCH

Greek inflation edges up again



Greece's consumer price index for January was down 0.1 per cent from December, with annual inflation running at 8.4 per cent, the National Statistical Service said yesterday. Over the same period last year, the CPI dropped 0.4 per cent. Inflation in December was 8.1 per cent, and last January it was 11.1 per cent. The smaller CPI drop this year was attributed to a 1.6 per cent rise in the price of foodstuffs and a 2.2 per cent increase in the cost of alcoholic beverages and cigarettes through higher direct taxes. Telephone, fuel and insurance rates and housing rents also were up. However, clothing prices were down because of winter sales, the service said. Last April the inflation rate dropped below 10 per cent for the first time since 1972, hitting 9.9 per cent. Greece's current account posted a deficit of $551m (£357.7m) in October, up from $296m in September, the Bank of Greece said yesterday. *Agencies, Athens*

■ Austria's wholesale price index in January was down a preliminary 0.4 per cent on the year, against a fall of 2.5 per cent in December.

David White describes the 'dirty war' dominating Spain's election campaign

Waves of sleaze set to drown González

SPANISH ELECTIONS
March 3

The gates of purgatory for Spain's ruling Socialists stand on either side of the same Madrid street, Calle Génova. On one side is the headquarters of the centre-right Popular party, which all the polls say is heading for its first general election victory on March 3. On the other is the National Court building, source of the greatest damage to the Socialists' once clean image.

A growing climate of scandal has culminated in charges against Mr José Barrionuevo, former interior minister and still a candidate for re-election to parliament. The charges, over "dirty war" activities against Basque terrorists, destroyed any hopes the Socialists might have had of a judicial truce during the election campaign.

For the last year, Spanish politics have increasingly been overshadowed by the *case of* the Anti-Terrorist Liberation Groups (Gal), active in the mid-1980s. Mr Felipe González, prime minister, has always denied that his government backed or condoned them. His problem is that most Spaniards do not believe him.

The case caps a list of others involving former subordinates, including cases of alleged illicit enrichment by Spain's first civilian Civil Guard chief and a former central bank governor. Separate proceedings against disgraced financiers Mr Mario Conde and Mr Javier de la Rosa do not touch the administration directly, but add to a general climate of sleaze.

According to a poll in La Vanguardia, the Barcelona-based newspaper, if the Socialists lose the election, 87 per cent of Spaniards believe "scandals and corruption" will be a prime reason.

Since last year the centre of political attention has moved from parliament to the courts. As in Italy, a new phenomenon has emerged in recent years: the "super-judge".

Investigating judges – often young, since they *qualify* by examination without needing practical legal experience – do not preside over trials but have considerable powers. Their job is to conduct the pre-trial inquiry, from start to finish, a task that in different systems like the UK's would be mostly done by the police.

They can have suspects detained or put on bail, issue *search warrants or order* telephones to be tapped. They can also declare secrecy, in which case lawyers are kept out unless their client has been charged. In most cases it is up to them whether to commit someone for trial.

If Italy has had Mr Antonio Di Pietro, Spain has Mr Baltasar Garzón, the most famous and controversial in a profession which has never before enjoyed such stardom. Mr Garzón, 40, made his name in the 1980s as the scourge of drug-traffickers. He has a taste for good clothes and publicity, such as drug-busting stunts with television cameras in attendance.

For the last election in 1993, Mr González co-opted Mr Garzón to stand with him on the Socialist list for Madrid. The new deputy was put in charge of the government's anti-drug plan. But the following year, frustrated with his political career, he quit, saying he had been used as a "puppet" and accusing the government of being passive on corruption.

Another judge who had also been brought into parliament, Mr Ventura Pérez Mariño, took the same step a year ago after calling on Mr González to resign over the Gal.

Mr Garzón went straight back to his National Court job – a move permitted by a law introduced by the Socialists themselves – and proceeded to reopen the Gal inquiry, thereby becoming the scourge of the government he had *served under*.

Socialist leaders hinted at a "political operation" against them. Mr Barrionuevo and Mr *Rafael Vera, former number* two at the ministry, both tried to get him taken off the case. *Last summer Mr Garzón* handed the main case up to the Supreme Court to deal with the accusations made against senior politicians. But he is still burrowing away at the Gal affair, pursuing individual murder cases.

The reason for the high profile enjoyed by some judges lies largely in the court structure, says Mr Jaime Alonso, a criminal lawyer in Madrid. The National Court was created after General Franco's death, replacing the notorious Public Order Tribunal.

Its main job – paradoxical as it seems now – was to provide a central court for trying Basque terrorists, on the grounds that judges in the Basque country would come under too much pressure. Its responsibilities were later extended, and now include business crimes. This means a lot of the biggest investigations pile up on the desks of just six National Court judges.

The welter of cases is made worse by a peculiarity of Spain's legal system, under which anybody can bring a criminal suit, even if they are not directly affected. Some have become habitual criminal litigants, notably Mr José María Ruiz-Mateos, the businessman who is *himself involved in a long tussle* with the law since the government expropriated his tottering empire in 1983. Whether a case is followed up is at the judge's discretion.

Many lawyers feel judges' *power and influence go too far.* All the main political parties – the Socialists, the PP and the Communist-led United Left – talk of reforming the National Court's role. The joke at the PP offices is that people prefer to walk on that side of the street, rather than in front of the court, lest they are pulled in.

See Editorial Comment

How botched anti-terrorist operations could force PM to testify about government role in killings

Four Spanish policemen go to France on a secret mission to capture a terrorist suspect. But as they try to bundle him into a car they are nabbed by French police and taken in.

A few weeks later, another mission is launched to kidnap another terrorist suspect, this time using mercenaries. They get back to the border but the frontier police (this is in the time of border controls) have not been tipped off. They try a second border post: same result. At the third attempt, they get through. Another car meets them and they all go to a hiding place in northern Spain. But they have got the wrong man.

It is decided to hold on to him, and a note is sent demanding that the French release the four Spanish policemen from custody. The policemen are allowed to return. After 10 days in captivity, the bemused victim is released.

This inglorious episode, the first action claimed in the name of the Anti-Terrorist Liberation groups (Gal), is related in Supreme Court Judge Eduardo Móner's charges against Mr José Barrionuevo, interior minister from 1982 to 1988. Curiously, the case has so far focused on the least serious of all the crimes attributed to the Gal, which include about 25 murders.

The initials Gal surfaced in late 1983, a year after the Socialists came to power. But they were preceded by other shadowy organisations including the Spanish-Basque Battalion and the Apostolic Anti-Communist Alliance. The same man whom the mercenaries were supposed to kidnap was the target of an unsuccessful car bomb attack two years earlier. Between 1978 and 1981 more than 20 people were killed in apparent anti-terrorist reprisals.

The question is whether the Gal were simply a continuation of these practices, with the connivance of local officials, or whether *government figures actively promoted them.* The charges, based on other defendants' testimony, attribute "executive functions" in the Gal to Mr Barrionuevo and Mr Rafael Vera, his former security chief. Whether Mr Felipe González himself is called in is something the judge has yet to decide.

DIRTY WAR

Former interior minister Barrionuevo charged by Supreme Court judge on three counts in kidnap case; 14 others charged by National Court judge. Five further cases connected with the Anti-Terrorist Liberation Groups (Gal), involving murders, in National Court.

José Barrionuevo

TAXES & SHARES

Former Bank of Spain governor Rubio charged by Madrid judge with falsification and tax fraud. Also accused in separate case over manipulation of share prices. Affair led former finance minister Solchaga to quit as *Socialist parliamentary leader.*

Mariano Rubio

FRAUD & BRIBERY

Former Civil Guard chief Roldan in custody on charges including misappropriation, fraud and bribery. Fled Spain in 1994, prompting instant resignation of interior minister Asuncion. Roldán arrested in Bangkok last year. Former Socialist regional president charged in Navarre in related case.

SECRET FUNDS

Senior officials, including former interior minister Corcuera, on charges of misusing discretional secret funds.

José Luis Corcuera

PHONE-TAPPING

Former intelligence service chiefs accused of illegal phone-tapping. Further case in military court over removal of secret documents. Deputy premier Serra and defence minister Vargas both quit over affair.

PARTY FINANCE

Seven charged out of 39 initially cited in case over alleged illegal financing of Socialist party in late 1980s.

SCANDAL IN SPAIN
The Case File

Poll violence fears fuelled by shooting

By David White in Madrid and Lionel Barber in Brussels

Fears of a resurgence of Basque violence during the Spanish general election campaign became starkly real yesterday when the brother of a *Socialist MP was murdered on* a San Sebastian street.

The murder was assumed to be the work of Eta, the armed Basque separatist organisation. It was the first political killing in Spain since the government announced an early general election on March 3.

Mr Fernando Múgica, a well-known lawyer prominent in local Socialist politics, died in hospital after being shot in the head while returning from court with his son.

His brother, Mr Enrique Múgica, a former justice minister, heads the Socialist list of candidates for the Basque province of Guipuzcoa, a stronghold of radical Basque nationalism. While in the government, he was responsible for a controversial policy of dispersing Eta prison inmates in jails across the country.

In a similar attack a year ago, an Eta gunman killed the local leader of the centre-right *Popular party, Mr Gregorio* Ordóñez, in a San Sebastian restaurant in the Basque country.

It had been widely feared that Eta, reduced to a small hard core, would try to mount a spectacular operation during the election period.

The killing served to dramatise a diplomatic quarrel that has broken out between Spain *and Belgium over an extradi*tion case. Madrid yesterday voiced "profound displeasure" at Belgium's decision to release a Spanish couple alleged to have collaborated with Eta, and said it was sus*pending "all aspects" of judi*cial co-operation between the two countries.

Belgium's ambassador in Madrid was summoned to the foreign ministry yesterday morning and his Spanish counterpart was called back from Belgium "to inform the government of the new situation". Diplomats said this was a step short of recalling an envoy for "consultations".

The couple, Mr Luis Moreno and Ms Raquel García, were released from custody after the Belgian Council of State blocked an extradition order agreed by the justice ministry two weeks ago. They are accused of having provided accommodation and transport for an Eta unit in the Bilbao region.

Spain has been seeking their return since 1993. The foreign ministry said the release was "in open contradiction" with EU co-operation agreements. It *urged the Belgian government* to use all means to ensure the couple did not evade justice.

Belgium said last night it had no choice but to comply with the decision of the court, which had ruled that the Spanish case for extradition was not compatible with the definition of terrorist activities in the 1977 European Convention.

German economists argue against job alliance plan

By Peter Norman in Bonn

Senior German economists yesterday urged the Bonn government and employers' organisations not to accept key elements of the "alliance for jobs" proposed by the IG Metall trade union as a way of reducing unemployment.

The committee of academic economists which advises the economics ministry said industry should not promise to create a specific number of jobs in return for wage restraint by unions. Nor should the government fall in with union demands to abandon plans to cut unemployment pay and *tighten the criteria* for social security payments.

The alliance for jobs as put forward by Mr Klaus Zwickel, head of IG Metall, envisages union acceptance of pay increases no higher than inflation next year in return for employers in the metalworking industry creating 300,000 jobs and employing 30,000 long-term unemployed in a three-year period starting this year.

With official figures tomorrow expected to show German unemployment above 4m, the plan has been broadly welcomed by the government while avoiding any commitment to change its policies in line with the union's wishes.

In a report explaining how best to reduce the 1.13m-strong ranks of Germany's long-term *unemployed, the advisory com*mittee said the union's offer of wage restraint and other concessions could be an important contribution towards employing those who had been out of work for more than a year.

But employers' organisations should not commit their members to job creation, and government action to reform Germany's social security system was essential.

The 30-strong academic committee, chaired by Mr Norbert Kloten, a former head of the government's council of economic advisers, said the long-term unemployed could hope for jobs if fundamental changes were made in Germany's system of collective wage bargaining.

Pay settlements should take *more account of local condi*tions and there should be a wider spread between wages for skilled and unskilled workers through reducing the cost of unskilled labour.

It was also essential to change the rules on social security payments to correct financial disincentives for the long-term unemployed accepting proper jobs. The report said the head of a five-person family living on social security would gain nothing from taking a job which paid less than DM30,000 (£13,250) a year.

● **Reuter adds:** The government, state rail company and unions agreed a package yesterday involving more flexibility on working hours, cuts in *overtime and expanding* part-time work in exchange for slowing job losses.

Italian constitutional pact runs into opposition

By Robert Graham in Rome

The leader of Italy's Party of the Democratic Left (PDS) is facing a strong groundswell of protest from his supporters over last week's pact to back a new government committed to significant constitutional reforms.

The objection is embarrassing Mr Massimo D'Alema and is straining the centre-left coalition which the PDS dominates. If it continues to gain momentum, it could seriously limit Mr D'Alema's room for manoeuvre in perusing constitutional reform and put his leadership at risk.

One of the main *"dissident"* figures is Mr Stefano Rodota, a former chairman of the PDS parliamentary group and a leading party intellect. But those voicing outright opposition to the pact include Mr Alfiero Grandi, prominent on the left of the main CGIL union confederation, and Mr Sergio Garavini, veteran member of Reconstructed Communism, formed from the hard-*line of* the old Italian Communist party.

Just as important are those who are reluctant to undermine Mr D'Alema directly but are nevertheless extremely critical of the deal with the rightwing coalition headed by former premier Silvio Berlusconi and Mr Gianfranco Fini, leader of the National Alliance.

Both the latter and the open dissidents are concerned that Mr D'Alema has agreed to introduce an ill-defined semi-presidential system of government alien to the traditions of both the centre and left in Italy.

They mistrust Mr Berlusconi's motives in agreeing to implement constitutional reforms after refusing to co-operate on such changes for the past two years in parliament. Furthermore, they are extremely wary of Mr Fini's insistence on a strong directly elected chief executive which smacks of authoritarianism.

At a press conference yesterday the dissidents said they were not seeking to create a *new* party but rather form a unified front to oppose the introduction of the proposed semi-presidential system modelled on that of France. "Semi-presidentialism does not provide stability," Mr Rodota said.

A system based more on a German-style chancellor as chief executive was more suitable to Italy.

Role of New York public relations consultant for BAT being investigated in US

Grand jury probe on tobacco witness

By Richard Tomkins in New York

A grand jury in Washington is examining whether a public relations consultant acting for Britain's BAT Industries was involved in a campaign to intimidate Mr Jeffrey Wigand, the anti-tobacco lobby's star witness in two criminal investigations of the tobacco industry.

The consultant is Mr John Scanlon, a partner of the New York public relations firm Abernathy MacGregor Scanlon. The investigation concerns his role in acting for Brown & Williamson Tobacco. BAT Industries' US arm and Mr Wigand's former employer.

Last month Brown & Williamson released a 500-page dossier to the Wall Street Journal entitled: The Misconduct of Jeffrey S. Wigand Available in the Public Record. It combed through details of Mr Wigand's past life in an attempt to find episodes that might cast doubts on his credibility.

Among other things, the document sought to show that Mr Wigand had faced charges of shoplifting and wife-beating and that he had mis-stated his academic qualifications. The Journal, which checked the claims, said many of them were "backed by scant or contradictory evidence".

Mr Wigand is the most senior whistle-blower to defect to the anti-tobacco lobby. He has made several allegations against Brown & Williamson – most recently last Sunday on the CBS News television programme 60 Minutes. These include a claim that the company had misled Congress about the addictive qualities of nicotine.

Mr Wigand is a federal witness in a US justice department investigation as to whether tobacco executives perjured themselves in congressional testimony about tobacco addiction. He is also a witness in a separate investigation of whether the tobacco company Philip Morris violated securities law by misleading shareholders about smoking risks.

Yesterday, Mr Scanlon was out of the US and could not be contacted for comment. But Brown & Williamson confirmed that he had been acting for it and that he had been issued with a subpoena.

Mr Joe Helewicz, the company's vice-president for public affairs, said Mr Scanlon had been retained as "a facilitator" to arrange meetings of company executives and reporters interested in hearing Brown & Williamson's side of the story.

Mr Helewicz also said Brown & Williamson was exercising its constitutional rights to free speech by attempting to refute Mr Wigand's "unsubstantiated or libellous comments and allegations against Brown & Williamson, our former chief executive officer and the company's employees.

"We find it very strange and indeed absurd that Brown & Williamson is being criticised or targeted in some way because we are responding publicly to unsubstantiated allegations by Jeffrey Wigand. We have a right to answer those charges," Mr Helewicz said.

Residents resist gas pipeline in Chile

By Imogen Mark in Santiago

Small landowners and neighbourhood groups in an area outside Santiago are threatening to obstruct work on a pipeline to bring natural gas from Argentina to the Chilean capital.

The Chilean environmental authorities last week gave GasAndes, a Canadian-Chilean consortium, the go-ahead to build the pipeline. The consortium, led by Nova Corp of Canada, announced it was to start work immediately on the 165km Chilean section.

The project needs to be supplying gas to industrial customers by mid-1997, before new environmental restrictions come into force in the capital at the end of that year.

Despite reassurances from GasAndes, which has obtained rights to work on the affected land, opponents say they are worried about the potential dangers from the pipeline in an earthquake-prone area. Many are middle-class professionals who have secured much media exposure. This is transforming the issue into a test case for citizens' rights.

The opposition has proposed alternative routes for the pipeline away from populated areas. GasAndes says it is still studying one such proposal. It also has 30 days in which to appeal against a ruling on the siting of the decompression centre where the gas feeds into the distribution network. The government environmental commission has rejected a site in a residential area.

A second source of environmental concern over the arrival of natural gas is the problem of increased emissions of nitrogen oxide pollutants from a gas-fired power plant to be built in Santiago by Chilgener, a Chilean generator and part of the GasAndes consortium.

Nitrogen oxide combines in sunlight with hydrocarbon emissions to produce ozone, a toxic gas. Ozone levels in Santiago are already well above international norms, largely thanks to diesel fumes.

Budget deal within reach say Clinton and Dole

By Jurek Martin, US Editor, in Washington

President Bill Clinton and Senator Bob Dole insisted yesterday that a balanced budget agreement was within reach in the light of new policy proposals agreed yesterday by the nation's governors.

In speeches to their annual conference in Washington, both specifically welcomed the governors' initiative on reform of Medicaid, the federal insurance programme covering about 37m poor and disabled citizens which has proved a big stumbling block in the budget negotiations between the administration and the Republican Congress.

A second initiative, on welfare reform, also appeared to go some way to meeting the administration's objections to bills passed by Congress, most obviously in its recommendation that the food stamp programme be preserved "in its current uncapped entitlement form".

The president called the recommendations, passed unanimously by the conference, "a huge step in the right direction" and the majority leader said they went "a long way" to breaking the impasse.

But Mr Clinton was careful to add that he still had problems with some of the details of the proposals, while Mr Dole said he could not predict speedy action by the Congress.

Several of the governors, both Republican and Democrat, also acknowledged that tough negotiations lay ahead with Congress over the details. Governor Roy Romer, the Democrat from Colorado and one of the authors of the report, emphasised it was more of a "framework" than a bill itself.

The Medicaid blueprint tries to split some of the ideological differences between Republicans and Democrats. It discards the word "entitlement" so offensive to conservatives and replaces it, in Mr Romer's words, with "the right kind of guarantees [of coverage] to the right kind of population".

It allows individual states rather than the federal government to define eligibility for the disabled, but subject to the approval of the federal government. Mr Clinton said he might have some problems with eligibility criteria.

The report, while giving the states most financial control, also envisages a fallback role for the government in the event of "unanticipated programme costs".

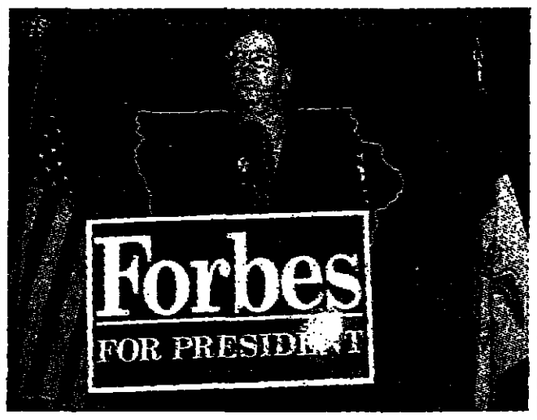
The governors conceded – and Mr Clinton duly noted – that the proposal had been subject to no economic "scoring" by the Congressional Budget Office, now considered the leading arbiter in budgetary matters. That process could itself take weeks.

Mr Dole, in a familiar Washington political milieu, was more relaxed and humorous than he was in replying to the president's state of the union message or has been recently on the primary campaign stump. He said he had formed "a good relationship" with Mr Clinton over 50 hours of budget negotiations and called on the governors to help in "bridging differences without sacrificing principles".

Mr Clinton was equally complimentary to the majority leader. He thought the states and their communities should have a much greater say in managing the challenges presented by this "age of possibility".

Both men, in effect, seemed to see the governors as a lever to help bring their own right and left wings into line in pursuit of a balanced budget agreement.

Governor Mike Leavitt, the Republican from Nevada, said his colleagues had provided "a neutral ground" for debate on social safety net policies since their proposals were bipartisan.



Forbes out-spending them all

Mr Steve Forbes, the wealthy magazine publisher (pictured above), has probably spent more money on radio and TV political commercials than all his rivals for the Republican presidential nomination combined, Jurek Martin reports from Washington.

The latest report from the Federal Election Commission, for the final quarter of last year, found Mr Forbes laying out $9.7m for media time. Senator Bob Dole, Senate majority leader, spent $1.8m and Mr Lamar Alexander, former Tennessee governor, $1.75m.

The discrepancy may have widened since, given Mr Forbes's heavy advertising in the early primary election states of New Hampshire and Iowa. A count in Time magazine this week said a typical New Hampshire voter was seeing or hearing 34 Forbes commercials a week, more than double Mr Dole's exposure.

Mr Forbes's campaign, which has spent $18m since he first considered running last spring, is largely self-financed. This not only frees cash for media buying but also leaves him outside the limits of state spending by candidates accepting federal matching funds.

The FEC report said that, of Mr Dole's $21m total spending last year, $2m went on fundraising. For Senator Phil Gramm of Texas, that took more than $4m out of $19m.

AMERICAN NEWS DIGEST

Sara Lee to pay anti-trust fine

Chicago-based consumer products giant Sara Lee has agreed to pay a record $3.1m fine for failing to notify US anti-trust authorities before an acquisition of assets from Britain's Reckitt & Colman in 1991, officials said yesterday. The US justice department filed the suit and proposed settlement in a federal court, claiming Sara Lee had violated anti-trust notification requirements.

At issue was Sara Lee's purchase of the shoe care products division of Reckitt & Coleman for some $25.8m. The complaint said the contract had failed to provide a fair market value for the US assets. Because Sara Lee gave a low estimate of the US assets, it claimed it was not required to report the transaction, saying the assets were worth less than the $15m limit.

At the time of the acquisition, Sara Lee and its Kiwi division had a 90 per cent share of the US shoe polish market and Reckitt and Colman's Griffin was one of the few remaining competitors.

The proposed settlement, involving the largest US civil fine for violating pre-merger notification requirements, remains to be approved by a judge. *AFP, Washington*

Moody's ceiling on Peru rating

Moody's, the rating agency, has assigned a sovereign ceiling of B2 for ratings of foreign-currency bonds issued by Peru, placing it a notch below Argentina and Brazil on its ratings scale.

Peru has not issued any bonds in the international bond market to date, but the sovereign ceiling denotes the highest rating any bonds issued by a Peruvian entity would receive. This is the first time Peru has been rated by one of the large international rating agencies.

Peru has "made enormous progress in economic and political stabilisation since 1990, but its external debt and debt servicing remain burdensome," the agency said.

Beginning this year, Peru faces a sharp rise in debt servicing costs – beyond the resumption of payments to banks – which will require another restructuring of its debt with bilateral lending institutions. Additional capital account vulnerability arises from rapidly growing short-term debt and the banking system's large holdings of dollar deposits, Moody's said.

The sustainability of financing for the current account deficit is also a concern, it says, "considering that, during the past few years it, has been covered to a large extent by privatisations and confidence sensitive capital inflows."

The country's main political weakness is the concentration of power in the hands of President Alberto Fujimori. *Conner Middelmann, London*

Caracas stock market surges

The Caracas stock exchange has risen to two-year highs, amid rumours of a possible devaluation of the bolivar.

The parallel exchange rate of Venezuela's currency, established by the difference in price between Brady bonds traded in Caracas and New York, has slipped to 394 to the US dollar. The official exchange rate is fixed at 290.

The depreciation follows the implementation of stricter controls in Brady bond trading nearly two weeks ago. The regulations, which introduced a six-day resale ban on such bonds, led to a virtual collapse of the market in them. The trading volume has only recovered slightly since then.

The Caracas stock market's share index reached 2,315 points by noon yesterday. One analyst in Caracas said a similar rise in share prices had occurred last September, three months before the government devalued the bolivar by some 40 per cent. *Raymond Colitt, Caracas*

A rightwing activist is jeered by Labour supporters among Blich High School students AP

PERES TRIUMPHS WITH EASE IN THE HIGH-SCHOOL ELECTION

Mr Shimon Peres the Israeli prime minister, won a thumping victory yesterday against right-wing Likud leader Benjamin Netanyahu in a mock election at a high school often seen as a barometer of the national mood, Julian Ozanne reports from Jerusalem.

In a contest taken seriously by Israeli politicians and media Mr Peres took 61 per cent of the vote for prime minister compared to 39 per cent for Mr Netanyahu among 17 and 18 year-old students at Blich High School in a middle-class neighbourhood near Tel Aviv.

Three times in the past 20 years the school's mock election accurately predicted the outcome of general elections in 1977, 1984 and 1992 and Israeli media billed the poll as a local version of the New Hampshire primaries, the crucial early test in the US presidential race.

Senior party leaders from both right and left made personal appearances before the 780 eligible voters at the school during a week-long election campaign. Media commentators even went as far as saying yesterday that one reason Mr Netanyahu announced a new right-wing election pact on Monday was to influence the High School result.

In the separate ballot for parliamentary elections Mr Peres' Labour party won 46 per cent of the vote against 36 per cent for the new right-wing alliance between Mr Netanyahu's Likud and the ultra-nationalist Tsomet party.

Mr Raanan Cohen, Labour Party whip who went to the school to hear the announcement of results, was euphoric. "It couldn't have been more tremendous," he said as student-supporters carried him on their shoulders.

Israel radio carried news of the results live amid speculation that Mr Peres will next week move the elections forward to May from their scheduled date of October 29.

Winds of change sweep the Golan Heights

Julian Ozanne detects a swing away from the unwavering opposition to returning the land to Syria

Mr Warren Christopher, US secretary of state, yesterday made new proposals for Israel-Syria peace negotiations in more than three hours of talks with President Hafez al-Assad. But a US official said the discussions were inconclusive, Reuter reports from Damascus.

Mr Christopher said afterwards he had a "good meeting" with Mr Assad.

A senior US official cautioned against concluding that Mr Assad would not continue negotiations if Israel calls an early general election.

Israeli-Syrian negotiations have shown progress in the past few months but there are concerns the process could be put on hold, or even backslide, in the heat of an Israeli election.

US officials acknowledge early Israeli polls could affect peace talks with Syria but insist the two sides have made such significant progress that an agreement in 1996 remains a very real possibility.

For months Mr Yoav Tsur, who runs a wind farm on the Israeli-occupied Golan Heights, played a farcical political game with his rightwing neighbours. Every day he put up a big blue and white banner bearing a slogan in favour of the government's policy of returning the Heights to Syria in exchange for peace.

At night, rightwingers pulled the sign down. Eventually he put the banner inside a 22,000-volt fenced compound. Someone broke in and took it down.

"I left a note on the sign telling anyone who would try to take it down not to kill themselves," he said. "They are crazy."

Mr Tsur has been almost a lone pro-peace voice on the Golan. In the past three years a committee claiming to represent the 14,000 Israeli settlers living on the strategic windswept plateau has mounted a visible and successful nationwide campaign against the government's policy of returning the Heights to Syria in exchange for full peace.

They galvanised public opinion, arguing that Israel could have peace without giving up the Heights. They exploited fears that giving back the Golan, which provides a third of Israel's water needs, would be suicide. Banners with their slogan "Peace with the Golan" hung from apartment balconies in Tel Aviv, Jerusalem and Haifa and were stuck on car bumpers.

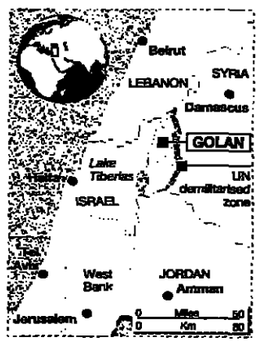
But the assassination of Mr Yitzhak Rabin, the prime minister, last November by a right-wing fanatic was a cathartic event for many Israelis, particularly those who were in favour of Mr Rabin's peace policies but who chose to keep silent in a deeply intolerant atmosphere.

Now a group of Golan settlers in favour of peace, including Mr Tsur, have established a forum and have begun to speak out against the right-wing in an effort to influence the peace process and mitigate its worst effects.

"I really used to think I was a crazy guy sitting on top of the hills shouting peace," said Mr Tsur. "But Rabin's death made a lot of people here start to speak out. They didn't want to be seen by the rest of the country as rightwing fanatics and they realised Rabin was a great man who paid with his life for reaching peace.

"Peace with the Golan is a lovely slogan but most people here realise it's nonsense. If we are really going to make peace with Syria we are going to have to pay the price and that means giving back the whole Golan which is Syrian land," he said.

The extent of the crack in the Golan settler movement, which only months ago was considered homogenous, was revealed in a poll last month. Forty-five per cent of Golan residents said they would vote yes in a referendum on full withdrawal in return for peace and security guarantees while 53 per cent said they would vote against. It showed that 66 per cent would be prepared to move if they had government compensation.



What was more surprising, support for the government's Syria policy was stronger among Golan residents than among the Israeli public. In a poll which included a sample of the entire Israeli adult population, 40 per cent backed full withdrawal in return for peace while 57 per cent opposed it.

Forty per cent national support for full withdrawal marks a substantial change in Israeli opinion since Mr Rabin's death. The right wing accepts that there has been a change in public opinion but says the majority still opposes surrendering the Golan.

"Israelis don't want to give up the Golan. They will never accept bringing Syria to the shores of Lake Tiberias, surrendering Mount Hermon and the evacuation of Jewish people as part of the price for peace," said Mr Sami Bar Lev, mayor of Katzrin, the main town on the Heights. "There will be a huge public outcry and the government will fall."

The Israeli residents on the Heights are not like the Jewish settlers in the West Bank. Not even the rightwing Golan residents believe the Heights are an intrinsic religious part of the biblical land of Israel. A majority of Golan residents went to live there to escape life in the towns and cities. They received big government grants, and when Israel annexed the Heights in 1981, they were told the Golan would be forever a part of Israel. They built spacious homes, put down roots, invested in businesses and developed a thriving community.

According to Mr Uri Dorman, an economic development official, public and private investment in the heights totalled Shk550m (£117m) between 1990-1995. The Golan economy, a mixture of agriculture and industry, produces annual income of Shk800m and provides 3,500 jobs. Big businesses, such as the Golan Heights Winery, a mineral water bottling plant, and a large dairy are continuing to invest. Plans for 1996 include a $10m (£6.4m) abattoir and meat processing plant and an olive oil factory.

"The approach is business as usual," he said. "We work on the basis that we are never leaving, whether the Syrians come or not."

But its impossible to find a Golan settler who is willing to stay under Syrian sovereignty, even in the unlikely event Syria would agree to such a move. For men such as Mr Tsur this is the most worrying aspect of peace; he has spent so much of his life developing the wind farm. He often spends days looking down from the ridge across the demilitarised border zone into Syria at a smaller Syrian wind farm 3km away. The Syrian wind farm rarely works and he wishes he could pick up the phone and call his Syrian colleague and offer some help.

"I love this land, this project and I love my home. If I had to choose I would stay forever but it's not a personal choice but a matter of the national interest, and peace is in the national interest. That means giving back the Golan to Syria," he said. "Would I stay under Syria? No thanks. They don't have a democracy and I wouldn't want to fall into the hands of the Syrian police. We will have to leave, regrettably, and go and start again somewhere else in Israel."

INTERNATIONAL NEWS DIGEST

Iraq starts oil talks with UN

United Nations and Iraqi government officials opened talks in New York yesterday that could lead to a resumption of oil exports by Baghdad.

Both sides emphasised that the discussions were "technical" in nature and that only a political decision by their principals could ratify any agreement.

Iraq hitherto has refused to take up the Security Council's offer last April to allow the sale of up to $2bn worth of oil over six months, mainly to pay for food and humanitarian needs.

Mr Abdul Amir al Anbari, the Iraqi envoy, promised "full co-operation" with the UN team. He said he believed an agreement was possible if there were no outside pressure – an evident allusion to US and British insistence that Iraq must conform strictly to the Security Council's "oil for food" resolution.

Ms Madeleine Albright, the US delegate, is president of the Council this month and is certain to follow the progress of the talks very closely.

Mr Anbari said, however, he did not think any further formal action by the Council would be necessary for the flow of Iraqi oil to resume. The prospect of Iraq's return to the international market, albeit under conditions strictly monitored by the UN, has already added a volatile element to oil prices. *Michael Littlejohns, New York*

Tajik rebel warlords back off

Two rebellious warlords who had marched on the Tajikistan capital appeared yesterday to be honouring their agreement to disarm, but the government's talks with a broader opposition have stalled.

The warlords agreed to end their insurgency in the Central Asian republic after President Emomali Rakhmonov, desperate to avoid a civil war, met their demands and fired three top officials on Sunday.

Forces of the two warlords have until midday today to lay down their heavy weapons and return to their barracks. The Tajik government declared an amnesty for the rebels. Dushanbe, the capital, was quiet yesterday, and residents resumed their normal routines while waiting anxiously for the warlords to complete their retreat.

The warlords, Mr Makhmud Khudoberdyev and Mr Ibodullo Boimatov, had helped bring Mr Rakhmonov to power but rebelled against corruption in his hardline communist government.

Mr Rakhmonov's government also has been battling Islamic rebels in the mountains of central Tajikistan. Up to 350 rebel fighters attacked government troops in the Tavildara region east of Dushanbe on Monday, the Interfax news agency said. *AP, Dushanbe*

US budget row hits Africa loans

The African Development Bank has carried out long-promised reforms but the US budget impasse is holding up the revival of loans to some of the world's poorest countries, the bank's president said yesterday. The bank has shed almost 20 per cent of its staff and introduced a new organisational structure, Mr Omar Kabbaj, the bank's president said.

But he said a revival of its African Development Fund (ADF) soft loans arm targeted at the bank's poorest members was held up by the budget impasse in the US, the bank's biggest non-African shareholder.

The ADF is the only source of bank credit for 39 of the institution's 53 African members. The US leads the bank's 24 non-regional shareholders with 5.8 per cent of voting shares, followed by Japan with 4.8 per cent. *Reuter, Abidjan*

WORLD TRADE NEWS DIGEST

US steps up banana fight

The US has returned to the offensive in its dispute with Brussels over the European Union's banana import regime by filing a second complaint at the World Trade Organisation. The new complaint has the support of Ecuador, as well as Guatemala, Honduras and Mexico which backed the first complaint last September.

Both claim unfair discrimination by the EU in favouring banana imports from African, Caribbean and Pacific (ACP) nations at the expense of Latin American producers, in violation of international trade rules.

US officials said yesterday that, for procedural reasons, it was simpler to file another complaint than for Ecuador to join the one already on the books, which will be withdrawn. Under WTO rules, Washington can ask for a panel to rule on the matter if consultations fail to resolve the dispute within 60 days.

Two panels set up under Gatt, the WTO's predecessor, condemned the EU's banana import system but Brussels has since secured a waiver from WTO rules for the Lomé Convention which grants preferential trade access for ACP countries. *Frances Williams, Geneva*

Regional groups prompt concern

The World Trade Organisation yesterday established a special committee on regional trade agreements with the aim of tightening its monitoring of free trade areas and customs unions. The committee will examine the consistency of regional trade groupings with international trade rules, taking over the work of 20 separate WTO working parties on individual regional pacts.

The committee will also look at the implications of proliferating regional arrangements for the multilateral system, reflecting concern about the collective impact of such arrangements, which increasingly have overlapping memberships but differing trading rules. Virtually all the WTO's 116 members belong to at least one regional grouping.

At its meeting yesterday the WTO's general council also agreed to set up a working party on membership terms for Kazakhstan and approved the draft protocol of accession for the United Arab Emirates, clearing the way for WTO entry. *Frances Williams*

Puerto Rico aqueduct contract

A consortium of Thames Water of the UK and Dick Corporation of Pittsburgh, US, has won a contract to construct a $356m aqueduct in northern Puerto Rico. The group will design, build and manage the 50 mile-long pipeline which will carry between 75m and 100m gallons per day by mid-1998. Dragos y Constructiones of Spain, one of the losing bidders, has filed a $27m suit in Puerto Rico's superior court seeking an explanation of why it was not awarded the contract. Other bidders were Aguas de Puerto Rico, a consortium led by Lyonnaise des Eaux of France, and Grupo Superacueducto Metropolitano, led by ICA of Mexico. *Canute James, Kingston*

■ China Development Corp (CDC), a leading Taiwanese investment company controlled by the governing Kuomintang, plans to join a T$20bn (US$728m) venture between Taiwanese and foreign partners to build a semiconductor plant. Taiwanese companies will put up 60 per cent of the investment. Syntek Design Technology, a Taiwanese company, and CDC will invest 25 per cent and 10 per cent respectively. Foreign partners, including three US semiconductor design companies, will take up the remaining 40 per cent of the shares. Shareholdings will be finalised this month. When the plant is operational in early 1998, monthly production capacity will start at 15,000 eight-inch wafers per month and move up to 35,000 wafers per month. *Laura Tyson, Taipei*

■ Bombardier, the Canadian aerospace and equipment group, is opening a representative office in Beijing to promote its commercial, executive and utility aircraft. Bombardier has delivered 30 aircraft to China and recently linked with Aviation Industries of China for future production deals. *Robert Gibbens, Montreal*

■ ABB Asea Brown Boveri, the electrical engineering group, has formed a joint venture in China to produce low-voltage industrial motors for the Chinese and international markets. The Shanghai venture, 55 per cent owned by ABB, will employ more than 1,200 people. *Frances Williams*

■ Offshore Systems International, a Vancouver electronic charting pioneer, is to supply C$2m (US$1.4m) of specialised circuit boards to Hughes Aircraft for upgrading the navigation systems for 800 US coastguard and navy ships. *Robert Gibbens*

Giant airliner contest kicks off

By Michael Skapinker in Singapore

Boeing and Airbus yesterday signalled the start of a battle to build "super-jumbo" aircraft capable of carrying more than 500 passengers.

Mr Borge Boeskov, vice-president of Boeing's commercial aircraft group, said at the Asian Aerospace show that the US company expected to announce the start of work on the Boeing 747-600X by the end of the year. The aircraft would have a similar range to the Boeing 747-400 but with 100-135 more seats. The Boeing 747-400 carries up to 400 passengers.

Mr John Leahy, senior vice-president of Airbus, said the consortium would begin developing its 550-seat A3XX by the end of next year so that it could begin commercial service between 2001 and 2003.

The announcements come after the breakdown last year of talks between Boeing and the Europeans on building a joint Very Large Commercial Transport (VLCT), capable of carrying up to 800 passengers.

Boeing and the four companies which own Airbus – Aérospatiale of France, Daimler-Benz Aerospace of Germany, British Aerospace, and Casa of Spain – concluded the market was too small to justify the estimated $15bn development cost. Only British Airways and Singapore Airlines had expressed an interest in the VLCT.

The advantage of the smaller projects announced yesterday is that development costs would be lower. Airbus says its aircraft will cost $8bn to develop. Mr Boeskov declined to say how much the Boeing 747-600X would cost.

The sum will, however, be lower than the cost of building the A3XX because Boeing will base the aircraft on existing 747 technology. Airbus, which does not have an aircraft the size of the Boeing 747, will have to develop its aircraft from scratch. Mr Leahy says he believes Boeing will have to spend $3.5bn on its aircraft, although some aerospace analysts believe the cost could be as low as $2bn.

Airbus was considering asking European governments to contribute, Mr Leahy added. Under a treaty concluded by the US and the European Union in 1992, governments can contribute one-third of the development cost. European governments are unlikely to welcome the idea, but Mr Leahy believes Airbus will be able to demonstrate that they would receive a healthy return on the investment.

Airbus was also asking companies outside the consortium to participate in and contribute financially towards the project, Mr Leahy said

Tokyo pledges latest move to liberalise markets will start within two months

Asset-backed securities for Japan

By Gerard Baker in Tokyo

The Japanese government yesterday said it plans to open an asset-backed securities market within the next two months, in the latest move towards liberalising its financial markets.

The announcement followed a day of meetings in Tokyo between finance ministry officials and their US counterparts. The two sides were reviewing progress made by the Japanese in opening up the country's markets under a financial services agreement reached with the US in January 1995.

"I told the US officials that we will introduce an asset-backed securities market within this fiscal year [ending March 31]," said Mr Haruhiko Kuroda, a senior deputy director-general of the ministry's international finance bureau. It was the first time Japan had given the US a firm date for the introduction of such securities.

Asset-backed securities are traded instruments whose value is determined by the value of an underlying asset or assets.

They have been widely used in other countries' financial markets, most often in the form of repackaged loans by banks and other financial institutions. They have proved effective in providing greater liquidity in markets.

They may be able to facilitate a quicker resolution of banks' bad loan problems if in their Japanese form they include property collateral. Banks are at present unable to dispose of the non-performing loan without disposing of the collateral, but if the loans can be repackaged as asset-backed securities, they could be traded.

US officials welcomed the move, saying it would benefit the Japanese economy and was in the broader interests of freer markets. US investment banks have considerable experience in handling asset-backed securities and are widely expected to benefit from the development of such a market in Japan.

The US government also praised the Japanese side for the impressive progress made on its other main commitments in tments in the agreement over the last year.

Larry Summers: praised Japan for progress on commitments

These pledges included important moves towards deregulation of corporate pension funds, liberalisation of other domestic securities markets, and the easing of restrictions on cross-border capital transactions.

"The Japanese government has delivered an extensive number of legislative and regulatory changes required under the agreement to open up new opportunities in the financial sector," Mr Larry Summers, deputy US treasury secretary, in Washington, said.

However, he warned that the US still expected to see Japanese progress in other areas, most notably an increase in the current limited disclosure of financial information by Japanese companies.

Alenia and Lockheed agree aircraft study

By John Simkins in Milan and Bernard Gray in London

Alenia, the Italian aerospace company, and Lockheed Martin of the US said yesterday they had agreed to study jointly a new medium-size military transport aircraft.

The aircraft, designated the C-27J, will be based on Alenia's existing G222 but would be upgraded to include new technology which Lockheed has included in its latest version of the Hercules transporter. The study will be small scale at first, but could be expanded to full development if potential customers express interest.

Studies of the new aircraft are part of an offset package to place work in Italy in return for an Italian order of 18 new Lockheed C-130J Hercules transporters. The Italian Senate has approved the $1bn Hercules order, provided an offset package is agreed.

Development of the C-27J would take three years, and production could start in 1999 if launch customers could be found. The main user of the G222 is the Italian Air Force. The US Air Force and some less developed countries also operate small numbers.

Italy also intends to participate in development of a European Future Large Aircraft, a direct competitor to the Hercules, along with the Airbus partners, France, Germany, Britain and Spain. The FLA will cost at least $5bn to develop, and Italy has said it will order 45 aircraft to win a 20 per cent share of the programme.

The Italian order for C-130J aircraft may disturb its potential FLA partners, whose commitment to the FLA project is also in question. Britain has already bought 25 C-130Js and France intends to order six to eight of the Lockheed aircraft to fill urgent requirements.

With European countries increasingly buying the C-130J, and budget pressures high, the FLA project risks being delayed. Only Germany has so far committed itself to substantial development spending on the FLA.

While the FLA will be larger and faster than the C-130J, it will also be much more expensive. Estimates suggest each aircraft might cost $140m, against $40m for the Hercules. Airbus, which is running the FLA programme, is hoping to reduce these costs substantially by using civilian manufacturing methods for the military aircraft.

Alenia, which believes its experience in producing the G222 justifies it taking a leading role in the FLA, said yesterday that its priority in the 30 to 200 tons class of tactical airlift aircraft remained participation in the FLA programme.

In its programme with Lockheed, Alenia is aiming at a budget version of the G222. The company, part of the state-controlled Finmeccanica, predicts a potential market for the G222 and the upgraded C27J, outside Italy, of 400 aircraft until 2014.

Only orders from outside Italy would count towards the offset package needed to satisfy the Italian government.

Manufacture of the C27J will be shared by Alenia, other Italian aerospace concerns and Lockheed Martin, which is based in Marietta, Georgia. Final assembly will take place at Alenia's military aircraft plant at Caselle, near Turin, and sub-systems manufacturing will be carried out in the Naples area.

The twin turboprop G222 is capable of hauling 8 tons over 1,000km, or five tons over 2,500km, at a cruising speed of 500km per hour. The C27J will be based on a version of the G222, known as C27 Spartan, developed in co-operation with Chrysler Technologies and supplied to the US Airforce.

Asian team to warn Europe on summit agenda

By Ted Bardacke in Bangkok

An Asian delegation arriving in Rome today for two days of preparatory talks on next month's summit between European and Asian leaders is carrying a stern warning.

The delegates say that raising the delicate and potentially embarrassing issues of human rights and democracy would damage the success of the meeting, designed mainly to foster trade and investment and promote regional stability.

That message emerged from a recent meeting of Asian foreign ministers, who decided such issues were "not relevant" to ties between the two regions.

"For the first dialogue to be successful, controversial and non-relevant issues should not be brought up," Mr Ali Alatas, Indonesian foreign minister, said. "I can think of at least 10 issues to seriously embarrass the Europeans, but we're not considering raising them."

Such issues included human rights in Bosnia, Chechnya and Northern Ireland, Asian officials said.

The first-ever summit, to be attended by heads of state of the 15 members of the European Union and 10 Asian nations – Japan, China, and South Korea, plus the seven members of the Association of South-East Asian Nations (Asean) – will be held in Bangkok on March 1-2. Asian countries are interested in engaging Europe to balance their complicated security and trading relationship with the US, partly institutionalised under the Asia Pacific Economic Co-operation forum.

Europe would like to see increased trade and investment with the fast-growing Asian economies and wants increased co-ordination with Asia on topics presented to the World Trade Organisation, as well as world telecoms liberalisation. Some European countries, notably Sweden and Portugal, are understood to be considering speaking out on human rights in China and East Timor. Other European leaders may raise questions on child labour.

Promotion of political dialogue, reinforcement of economic co-operation and the future of Asia-EU relations could be discussed. The unstructured nature of the meeting has Asian officials worried European leaders could derail the process by arguing too strongly on points the Asians feel are cultural-specific rather than universal.

"This is an opportunity for both sides to co-operate, not pick at each other's faults," a senior Thai foreign ministry official stated. Further summits could be held every few years, depending on a "friendly atmosphere", the official said.

Alatas: issues 'not relevant'

Hungry N Korea on short fuse

US aid seems to have been prompted by fears of destabilisation in the region, writes Tony Walker

Washington's decision last week to provide emergency aid to help alleviate food shortages in North Korea marks a further shift in US attitudes towards Pyongyang, and a recognition of the possible dangers of a famine-induced destabilisation of the Korean peninsula.

The US announcement that its International Development Agency would provide $2m (£1.3m) through the World Food Programme appears to have been made less for humanitarian reasons than out of real concern about a deteriorating economic and social environment in North Korea.

Pyongyang has appealed to the international community for huge food aid to help it deal with widespread shortages caused by devastating flooding last year in its main grain-growing regions. It says that 500,000 people are in immediate danger and several millions are being affected, including 2.1m children and 500,000 pregnant and nursing women.

Worries about mass starvation and the threat this may pose to an unpredictable regime in Pyongyang, allied with alarm about a possible refugee exodus from North Korea, are overriding perceived short-term results that might accrue from the sudden collapse of the world's last Stalinist dictatorship.

The US, which reached agreement with Pyongyang last year on assistance for a peaceful nuclear programme, has some 37,000 servicemen stationed on the Korean peninsula, and nuclear weapons in place. It has much to fear from a messy destabilisation.

According to Western officials in Beijing, nations with the most immediate interest in Korean stability, including the US, Japan and South Korea are considering three broad scenarios. These would involve:

■ **Implosion**, in which economic hardship and famine precipitated a violent leadership struggle causing the destabilisation of North Korea and the mass outflow of refugees.

■ **Explosion**, in which a desperate regime in Pyongyang sought to rally people on the brink of starvation by engaging in a reckless act of war against a common enemy – namely South Korea.

■ **Soft landing**, in which present relief efforts played their part in helping North Korea muddle through its present difficulties, the country stabilised and continued its gradual opening to the outside world.

North Korea's opaque system, its hermit-like leadership, and its weird responses on many international issues make it difficult to predict which course Pyongyang might follow, but its parlous economic state renders the outlook bleak.

"I am not very optimistic about the long-term viability of the regime," said a Korea specialist among western officials in Beijing. "International relief efforts may alleviate the situation in the short term, but it will not be easy for a rigid Stalinist system to evolve peacefully towards a more open society."

This is by no means a universal view, however. Mr Ian Davies, a consultant to United Nations Development Programme's Tumen River scheme, in which North Korea is a participant, believes Pyongyang is bent on following China's example and gradually opening its economy to the outside world.

The UN is promoting the Tumen River area, where China, Russia and North Korea meet, as a new economic zone involving the neighbours and Mongolia. North Korea, according to Mr Davies, is the most enthusiastic of participants.

"The North Koreans pretend nothing is happening, but the reality is that there are major economic changes taking place, but they don't call them changes," he says.

Mr Davies is also sceptical about the seriousness of the famine, pointing out that Pyongyang has belatedly discovered foreign aid in the same way that Beijing did in the early 1980s.

But international relief agencies, whose representatives have been on the ground in North Korea since last October, have no doubt the country is facing a full-blown crisis.

They attribute this partly to the severe flooding of last July and August, and also to the disastrous state of the country's state-dominated agriculture, reminiscent of problems caused by the collectivisation of Chinese agriculture in the 1960s and 1970s.

The UN's Food and Agriculture Organisation and World Food Programme, in a devastating report on North Korean agriculture completed last December, noted a catastrophic slide in output of staple rice and maize to 4.9m tonnes in 1995 from 8.1m tonnes in 1989, a drop of about 40 per cent.

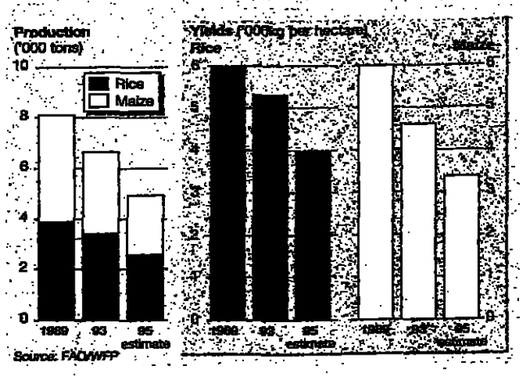
The FAO/WFP report estimates a shortfall in production of 1.7m tonnes in 1995, half of which is attributable to farming problems and half to floods. Per capita availability of food grains had slid from 345kg in 1989 to 222kg in 1994. The figure will drop further this year.

North Korea, the report said, will need 6m tonnes of food grains to feed itself in 1996, but at this stage domestic production, imports and food aid would cover just 4.8m tonnes, leaving a shortfall of 1.2m tonnes. Clearly, additional foreign aid is required beyond the $10m already promised.

In the longer term, this assistance will not solve North Korea's economic difficulties, caused by a stagnating economy, a demoralised workforce, lack of foreign exchange and investment, chronic fuel shortages and crumbling infrastructure. The present famine may be a warning of worse to come.

FAO/WFP Crop and Food Supply Assessment Missions to the Democratic People's Republic of Korea. December 1995. FAO, Via della Terme di Caracalla, 00100 Rome, Italy

North Korean rice & maize: unstable staples



Source: FAO/WFP

TOKYO AND SEOUL MAY FUND FUEL OIL SUPPLIES

Japan and South Korea should consider financing fuel oil deliveries to North Korea threatened with delay by Washington's budget crisis, Mr Yukihiko Ikeda, Japan's foreign minister, said yesterday. William Dawkins reports from Tokyo and John Burton from Seoul.

US officials worry that any supply delays could provide North Korean military hardliners with a pretext to scrap the 1994 agreement under which Pyongyang agreed to dismantle its suspected nuclear weapons programme.

Washington agreed to provide 50,000 tonnes of oil a year until North Korea can assure its energy needs with two new light-water reactors, which cannot be turned to military use.

"We should co-operate among Japan, the US and South Korea and consider a realistic action if it is an issue of a stopgap payment" until the US resolves the budget dispute, said Mr Ikeda.

He was responding to a plea by Mr Walter Mondale, US ambassador to Tokyo, who expressed fears the US budget dispute might not be resolved in time for the disbursement of an estimated $12m (£8m) needed to fund the oil deliveries to North Korea this month and next.

The issue is expected to be discussed today between Japanese officials and Mr Anthony Lake, US national security adviser, who is holding discussions in Tokyo and Seoul on a comprehensive North Korean policy.

South Korea has previously rejected suggestions that it should help finance the fuel oil deliveries because it has already promised to fund most of the $4bn nuclear reactor project for North Korea.

Meanwhile, the US is seeking other possible financial donors for the North Korean oil deliveries. It has approached the European Union, but "Brussels is unlikely to make up its mind about approving funds in the near future," one European diplomat in Seoul said.

ASIA-PACIFIC NEWS DIGEST

China closer to freeing currency

China has issued new regulations aimed at further preparing the way for full convertibility of its currency. Under the rules approved by state council, or cabinet, rights of foreign investors to repatriate profits, dividends and interest have been codified. But China stopped short of lifting the requirement that foreign funded enterprises be subjected to an annual audit of their foreign exchange transactions to ensure they "balance" inflows and outflows, and meet other contractual obligations.

The International Monetary Fund has been pressing China to end its archaic "balancing" system for foreign exchange transactions, but the People's Bank of China fears that such a step would mean loss of control.

"We don't want to see chaos caused by capital inflows and outflows in huge amounts at a stage when controls are weak," said the state administration of exchange control. A western banker said the new regulations in effect formalised existing practices, while representing an "incremental" step towards full convertibility. The benchmark for foreign exchange transactions would be set according to rates in the Shanghai interbank market – established last month – under a pilot programme. The IMF believes that China can afford to be more adventurous in moving towards full convertibility. *Tony Walker, Beijing*

Australian tariff cuts 'to stay'

Australia's federal opposition yesterday pledged to stand by existing tariff reduction schedules if elected at the March 2 elections. In its industry policy, published yesterday, the Liberal-National coalition also said it would push for a second board on the Australian Stock Exchange, on which smaller, higher-risk companies could be listed, but would retain the 150 per cent tax concessions on research and development work.

The opposition coalition is currently ahead in the opinion polls, although the latest Newspoll, published yesterday, showed a slight narrowing of the gap. It gave the coalition a seven percentage point lead, down from 10 percentage points before campaigning began. *Nikki Tait, Sydney*

■ Mr Paul Keating unveiled a health programme which would cost A$1bn (US$740m) in the first two years and more than A$400m a year after that. It aimed to cut surgery delays, provide rebates for private health insurance fees and improve care for the elderly. *Reuter, Canberra*

Taiwan warns news services

Taiwan has warned real-time news services not to relay unconfirmed reports concerning Taiwan-China relations before domestic media have had a chance to report them. The warning, by the country's Securities and Exchange Commission, comes after Taiwan's share prices moved sharply when Hong Kong newspapers reported this week that China planned a large-scale military exercise near Taiwan in the run up to next month's presidential election..

The SEC's regulator yesterday said he had urged the Taipei Stock Exchange to monitor investor information in order to stabilise share prices before the election. News agencies "should not lightly input unconfirmed reports relating to cross-straits relations before the domestic media have reported them, so as to prevent interfering in the normal operations of the market," the securities regulator said. It was not clear how the measures are to be enforced. *Laura Tyson, Taipei*

Call to reform India party funds

A leading overseas Indian businessman, Mr Srichand Hinduja, chairman of the Hinduja group, has called for a new system of state funding for Indian political parties to combat scandals such as those which have hit leading politicians in the past month. "No one has really got down to solving the problem at its root level: collection of party funds from the parallel economy," Mr Hinduja said. Funds could be raised for parties through a levy of corporate and individual taxpayers in India which would not widen the budget deficit. Non-resident Indians should also contribute $10 a year. In return they should be given the right to vote. *Peter Montagnon, Asia Editor*

■ The ruling Bangladesh Nationalist party, unveiling its manifesto yesterday for a general election next week, said it would not renew a 25-year friendship treaty with India if it won a second term in office. *Reuter, Dhaka*

'Comfort women' plea rejected

The Japanese government said yesterday it would reject recommendations by a United Nations special investigator to compensate "comfort women" forced to provide sexual services to the Japanese army during the second world war. Mr Ryutaro Hashimoto, prime minister, said his government would take the necessary legal counter-measures to revoke the report, submitted to the UN Commission on Human Rights. While the report calls for Japan to apologise and compensate individual comfort women, the Japanese government believes that it has no obligation since it set up a compensation fund in July last year to raise money from individuals and companies. *Emiko Terazono, Tokyo*

Suharto against 'irrelevant' levies

By Manuela Saragosa in Jakarta

Indonesia's President Suharto has ordered ministers to revoke unnecessary levies which have earned the country a reputation of a high-cost economy. His move follows a rare public protest against a tax on beer being charged and collected by a company owned by Mr Suharto's grandson.

After meeting the president, Mr Abdul Latief, manpower minister, quoted Mr Suharto as saying the government "must encourage the revocation of irrelevant levies" to help increase the competitiveness of Indonesian goods.

It is the second time in less than a week that the president has indicated through a minister that he wants levies removed. Indonesian businesses have grumbled quietly for a long time that they are vulnerable to an array of official and semi-official levies imposed by middlemen on goods and services.

Indonesian brewers await confirmation that authorities on the island of Bali will scrap a tax on beer. Last month brewers stopped beer supplies to Bali in protest against a Rp400 (17 US cents) a bottle levy charged by Arbamass Multi Invesco, owned by Mr Ari Sigit, President Suharto's 25-year-old grandson.

The Bali boycott was led by the publicly listed Multi Bintang, which is 75 per cent owned by Heineken of the Netherlands, as well as Delta Jakarta, the Anker beer producer partly owned by San Miguel of the Philippines, and the unlisted brewer BaliHai.

Mr Rene Hooft Graafland, president of Multi Bintang, said he welcomed the statements as evidence that "Indonesia sticks to its principles of [economic] deregulation".

The fact that foreign companies were involved in the brewers which made the complaint may have helped the industry group to press its case. Indonesia has liberalised its foreign investment regulations in an effort to improve its competitiveness in the region.

In a rare condemnation of the presidential family's business activities, Indonesian newspapers joined the brewers' outcry against the tax, referring to levies of the sort as "blatant rent seeking".

India acts to stall slide in rupee

By Mark Nicholson in New Delhi

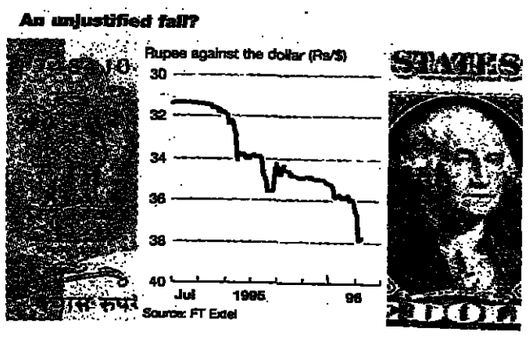
Protestations from Indian officials that the rupee's recent slide was unjustified given India's economic fundamentals, helped steady the currency yesterday after Monday's sharp fall from Rs36.79 to Rs38.05 to the dollar. But dealers said the rupee would remain vulnerable without strong central bank intervention.

The central bank has already committed an estimated $1bn (£670m) in sporadic intervention this month as the dollar's strength, and domestic political jitters, helped fuel a run on the rupee.

The slide has been sharply accelerated in the past few days by importers covering heavily against expected further falls. Exporting companies have also been delaying the remittance of foreign earnings.

The rupee closed yesterday at Rs37.70 to the dollar after breaching Rs38.35 during the day, rallying slightly after Mr Tejendra Khanna, commerce secretary, said the Reserve Bank of India should intervene "strongly" to push the rate closer to a "preferable" Rs34.50 to Rs35. This level, he said, reflected the commerce and finance ministries' assessment of the rate in line with India's trade flows and inflation position.

An unjustified fall?

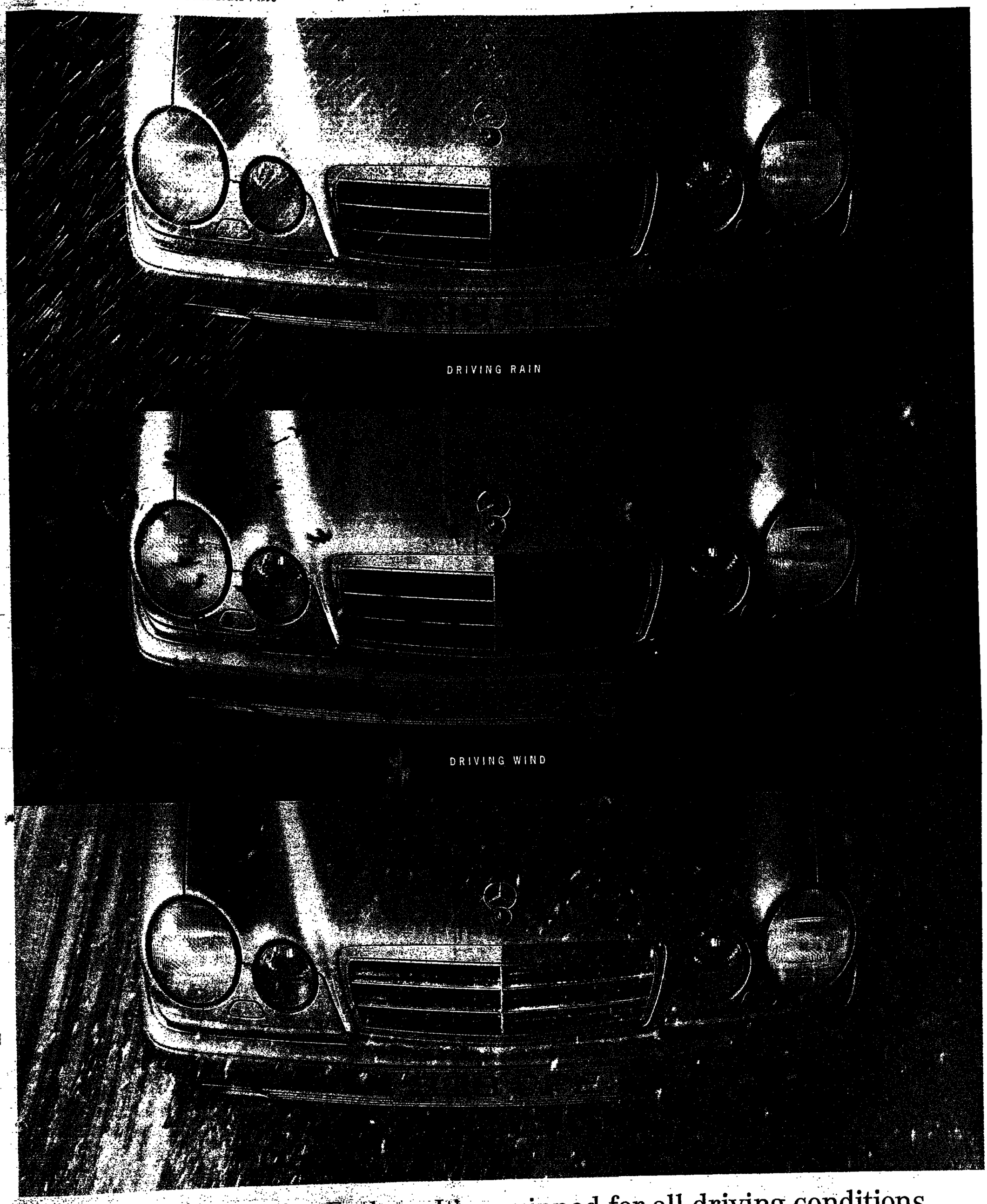


The bank remained sidelined and instead convened an emergency meeting of bank treasury heads in Bombay to discuss measures to curb the rupee's fall from Rs35 since early January. The bankers are understood to have said that only concerted intervention would support the currency.

"There's no supply of dollars and there's panic on the importers' side," said Mr Ravneed Choudhury, treasury manager at Standard Chartered in New Delhi. "Every exporter is saying we'll only remit when the rupee goes to Rs40."

The bank has left the market guessing, intervening only lightly on Monday, though Mr C. Rangarajan, central bank governor, then issued a statement that the rupee's plunge was "out of line with the fundamentals". He said the balance of payments position remained strong, with exports in the year to December up 24.17 per cent and imports up 29.27 per cent.

However, the recent mini-crisis has revealed India's thin forex market to be highly susceptible to relatively modest speculative sums, allied to the leads and lags of import and export flows. "If deals of $25m can move your national currency, then heaven help it," said one Bombay banker.



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German states ban UK beef for BSE fear

By Peter Norman in Bonn, Caroline Southey in Brussels and Alison Maitland in London

Three of Germany's federal states yesterday acted to halt imports of British beef because of fears of bovine spongiform encephalopathy or mad cow disease.

Following the expiry of regulations that permitted imports of UK beef from animals younger than 2½ years, North Rhine Westphalia and Bavaria announced that they would send back consignments of British beef while Rhineland Palatinate imposed a general ban on imports of UK beef and a ban on slaughtering cattle from the UK and their offspring in the state.

The action prompted an aggrieved response from the British embassy in Bonn. It said the bans breached German obligations to comply with European Union beef export rules and that Britain would seek EU commission action to enforce these rules.

Yesterday's bans on British beef imports came after the federal government in Bonn had refused to accept a unanimous call from the Bundesrat, the chamber of parliament representing Germany's federal states, for a halt to beef imports from Britain.

The Bonn government argued that the regulations approved by the Bundesrat contravened EU law. The stand-off between the two sides resulted in the previous regulations expiring yesterday without any replacement.

The European Commission said yesterday that the German state's action appeared to be illegal. But, an official, said the Commission still had to examine the decision in detail.

The official added that if the Commission stuck to the view that the action was illegal, "we will have no choice but to take action" against Germany.

"The Commission will ask Germany to revoke the decision. If it fails to do so the only course open to the Commission would be to challenge the German decision in the European Court of the official said.

"If member states no longer observe EU rules we will not have a single market any more. The Commission is obliged to ensure EU states uphold EU laws," the official said.

The UK's ministry of agriculture said it was concerned the move was illegal under EU free trade rules. "We want the Commission to stamp it out as quickly as possible."

● Sir David Naish, president of the National Farmers' Union, yesterday lashed out at the Conservative party's Eurosceptics, accusing them of undermining Britain's negotiating position in Europe.

He said there were times when Britain's competitors must be "rubbing their hands with glee and downing another schnapps to the success of the Eurosceptics".

His outspoken remarks were supported by a union survey of over 400 members showing that 64 per cent thought the government's stance in Europe had been too sceptical and had reduced Britain's influence. Some 60 per cent believed that EU membership had benefited UK agriculture.

Defence ministry to cut back residences

By Bernard Gray, Defence Correspondent

Britain's Ministry of Defence is to prune the number of lavish "official service residences" used by senior officers from 75 to 44 in the wake of the scandal over Air Chief Marshal Sir Sandy Wilson's £385,000 ($581,350) refurbishment of his Haymes Garth official home.

However, most of the 31 unlucky residents of the excluded houses, who were informed of the change yesterday, will remain where they are and their homes will be redesignated as ordinary "married quarters".

The MoD said that the main savings from the changes would come from reduced staffing of the remaining official houses. Currently staffing the residences costs £5m a year, but staff numbers are to be reduced from 234 to 108.

The changes are a response to Sir Peter Cazalet's investigation of the grand houses used by senior officers for official entertainment, commissioned in the wake of the Haymes Garth fiasco.

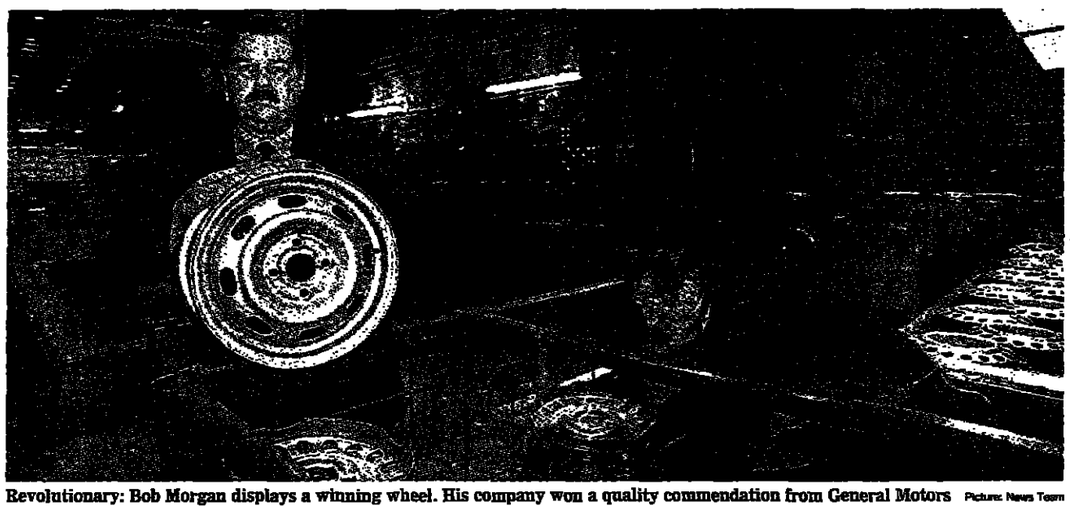
Officers will also no longer be paid a daily entertainment allowance, which ranged up to £20 a day for admirals and cost the MoD £5m last year. Instead will be forced to account for entertainment expenses as they go.

While few of the occupants of the downgraded houses will be forced to leave, the properties will no longer be renovated with "enhanced fixtures and fittings" when they fall due for redecoration.

Some residences will be sold. The commandant's house in Hong Kong, The Mount in Gibraltar and Field Marshal Vincent's house at Nato in Brussels are all to go. The MoD confirmed on Monday that Haymes Garth is also on the market. Estimates suggest it may fetch £450,000, about £60,000 more than Sir Sandy Wilson spent on the property.

Wheel supplier hails investment payback

By Peter Marsh in London



Revolutionary: Bob Morgan displays a winning wheel. His company won a quality commendation from General Motors Picture: News Team

Bob Morgan has a ready answer for those who ask about the likely payback from a two-year, £10m ($15.1m) investment and a doubling of his training budget.

Mr Morgan, managing director of Dunlop-Topy Wheels, Britain's biggest and Europe's fourth largest supplier of car wheels, points to steadily expanding output and a special quality commendation last month from General Motors, the world's biggest automotive company.

But just a few roads away in the Midlands city of Coventry, it is a different story for Clearplas, a similar-sized company which also makes parts for the vehicle industry.

Suter, the industrial company which owns Clearplas, said this week the business was likely to close with the possible loss of 440 jobs. This is in spite of £7m of capital spending during the past three years and a 50 per cent increase in annual sales over this period to some £23m.

The contrasting fortunes of the two companies illustrate the narrow line between success and failure in the vehicle parts industry – which in the UK has enjoyed a large increase in sales volumes on the back of big investment in car plants but where profits are under relentless pressure.

Following the lead set by Toyota, Nissan and Honda, the Japanese car companies with UK production bases, most of the big European-based automotive businesses monitor their suppliers virtually nonstop for quality and institute continual "cost down" programmes to get them to reduce product prices.

The suppliers know that unless they indicate a constant desire to improve quality and keep costs under control they may be dumped from the next set of new-model orders.

The pressure by the car groups is in turn driven by heavy competition in the vehicle market, which across Europe is showing signs of overcapacity as manufacturers braced for another disappointing year after a dismal 1995.

Explaining the reasons for Clearplas's likely closure, although selling the plant remains an option, Mr David Abell, Suter's chairman, said the plant was "not viable" given the moves by car companies to push down costs. "We were having to spend millions of pounds just to stand still," he said.

In the past three years, Clearplas, which makes plastic trim parts mainly for Rover, part of the German BMW car group, and Ford, has taken on about 140 new employees to cope with increased orders. However, it is barely profitable.

At Dunlop-Topy – owned 85 per cent by industrial group BTR and 15 per cent by Topy Industries of Japan, the country's biggest wheel maker – the mood is more upbeat. The company is expected to turn out this year about 7m wheels, worth some £46m.

Mr Morgan is especially proud that his company is the first of GM's 1,500 European suppliers to qualify for a new US-derived technical standard called the QS-9,000 that certifies motor parts groups according to quality and reliability.

Asked to justify the company's £500,000 a year training programme – up from half this level two years ago and which seeks to encourage teamworking and self-assessment among the 450-strong workforce – Mr Morgan points to a new order gained a few months ago from Land Rover, part of the Rover group, and which is likely to be worth some £2m a year.

He said he had heard from Land Rover that it was considering giving the contract – for 100,000 wheels a year for a remodelled version of its Discovery vehicles – to a competitor such as Lemmerz of Germany or Dunlop Roues, a French-based subsidiary of Sumitomo Rubber of Japan.

"Without the productivity improvement that came with the training, I don't think we would have got the order," said Mr Morgan who was installed as managing director at Dunlop-Topy 18 months ago from another part of BTR and after 30 years in the industry.

Recent changes at Dunlop-Topy – including investment to automate parts of the wheel-making process and changes in top management – also appear to have had a positive impact on other customers, including Toyota and Nissan.

The lesson, according to Mr Phil Newport, engineering manager at Dunlop-Topy, is that "spending money alone is not what matters, it is what you do with the people that matters".

Car sector pins sales hopes on tax cuts

By John Griffiths in London

New UK car registrations in January were just 0.3 per cent above year-ago levels, leaving a "very disappointed" motor industry hoping that tax cuts due in April could coax back buyers.

The 191,761 new cars registered last month, well below the level of two years ago, has set alarm bells ringing among the volume manufacturers. They may find it increasingly difficult to carry out their pledges to restrict supplies to the short-term rental market – now suspected of undermining the entire new car market.

Yesterday's statistics also showed a continuing rise in the market share taken by imports. They accounted for 60.9 per cent of registrations in January, compared with 58.9 per cent in the same month last year.

Ford started the year with its market leadership securely in place, with a share of 21.8 per cent and three of its models, the Fiesta, Mondeo and Escort, heading the "top 10" list of best sellers.

The UK short-term rental market in the past has absorbed nearly 500,000 vehicles a year. However they are bought at deeply discounted prices, and are returned to the market as "nearly-new" cars after just a few months in such volumes that new car sales have suffered.

If demand fails to improve carmakers may have difficulty keeping production lines going unless they review pledges to restrict rental supplies.

The disappointing figures may affect talks between the industry and the UK government on scrapping the yearly registration plate prefix letter.

Parts of the industry had hoped to have a substitute system in place in time to scrap the sales bulge the prefix causes. However, Mr Neil Marshall, policy director of the Retail Motor Industry Federation, suggested yesterday that if demand remains subdued dealers will need the short-term boost to output it entails.

Falling output leads to rate cut call

By Gillian Tett, Economics Correspondent

British factories cut production in December, raising fresh concern about the economy four years after it climbed out of recession.

The decline in output left the longer term trend for manufacturing growth at its weakest level since 1992.

The fall took the City of London by surprise and prompted speculation that Mr Kenneth Clarke, the chancellor, may respond to the weakness by cutting interest rates soon.

Meanwhile, there were signs that the economic slowdown is starting to affect employment. Jaguar, the luxury UK carmaker owned by Ford, said it was laying off workers at its Coventry plant for a week to shift stocks of unsold cars.

Mr Kenneth Clarke is due to hold his next monthly monetary meeting with Mr Eddie George, governor of the Bank of England, today. Most City analysts think the two men are unlikely to reduce rates this month, after two successive cuts in December and January brought base rates down from 6.75 per cent to 6.25 per cent.

In particular, Mr George recently indicated that he would be reluctant to sanction a larger cut without fresh signs that inflation was easing.

Nevertheless, the unexpected weakness of the manufacturing data left some City economists speculating that Mr Clarke may be tempted to act anyway.

As Mr Michael Saunders, UK economist with the US investment bank Salomon Brothers said: "The Chancellor has been quite sensitive to weak growth numbers in the past – the weakness of manufacturing will keep up pressure for a further base rate cut."

Overall manufacturing output was a seasonally adjusted 0.6 per cent lower in December than in November. On a three monthly basis – a more reliable guide to the trend – output was 0.2 per cent lower in the last quarter of 1995 than the third quarter, but 0.4 per cent higher than the same period a year before.

The weakness of manufacturing fuelled fears in the City that factory output could fall further, as companies respond to their excess levels of stocks by reducing orders.

Some economists hope any dip will be temporary. However, other economists fear that the stocks overhang, coupled with the weakness in European markets, could lead to a more prolonged downturn.

Meanwhile, the Treasury said yesterday it had not changed its forecast of 2.5 per cent manufacturing growth this year. Yesterday's fall in output was spread across most of industry, but it was largest in the food and textiles sectors.

UK NEWS DIGEST

Labour weighs expansion of PM's authority

Labour is considering creating a powerful prime minister's office by merging the functions of Downing Street and the cabinet office if it forms the next government. The proposal is likely to arouse concern among many backbenchers and several members of the shadow cabinet who are already worried by the centralisation of authority under Mr Tony Blair, the party leader.

One proposal is to create an enlarged department of the prime minister, enabling him to keep in closer touch with government departments and party headquarters.

Several senior Tory and Labour figures believe a further reinforcement of the prime minister's office is necessary. Prime Minister John Major currently has a staff of 93, small by the standards of other world leaders and in comparison with other UK departments. The cabinet office has expanded, largely by taking on the deregulation, competitiveness and public services portfolios.

John Kampfner, Chief Political Correspondent

N Sea oil output set to peak

Britain's North Sea oil production is set to peak next year then decline by 5 per cent annually, it was forecast yesterday. But gas production is set to increase, with "very large" increases predicted for British and Norwegian fields.

The forecast was made by Mackay Consultants, in a new eight-country North Sea report covering the period to 1999.

Britain's forecast oil production of 133.4m tonnes this year is set to rise to 137.8m next year, then fall to 129.7m tonnes in 1998 and 116.5m tonnes the year after.

Norway is forecast to rise from 150.8m tonnes this year to 159.7m tonnes next year, 167.9m tonnes in 1998 and 173.1m tonnes in 1999.

Norway overtook Britain in 1991 as the world's leading offshore oil producer. By 1999 it will account for 57 per cent of North Sea production compared with Britain's predicted share of 38 per cent, said the Inverness-based economic and management consultants.

Press Association

Motorola to invest $175m in HQ

Motorola, the US electronics group, plans to invest £116m ($175m) in a new European headquarters facility for its wireless telephone network infrastructire division on a green-field site north of Swindon.

The division, which currently employs 1,400 people in Swindon and a further 750 elsewhere in Europe, is responsible for the design and manufacture of Motorola equipment used in the latest generation of digital networks based on the GSM (global system for mobiles) pan-European standard.

Motorola, which came to Swindon's Euroway Business Park in 1989 with 45 employees, said the new facility would not necesarily result in new jobs, but could evetually be expanded to provide up to 1m square feet of office space, and house up to an additional 700 employees over the next five years.

Construction is due to begin in November, subject to planning and other approvals, with completion scheduled for the end of 1998.

Paul Taylor, London

Schools computer deal rapped

A government decision to award a £2m ($3.2m) contract for multimedia computers in Welsh schools exclusively to PC compatible computers, excluding both Acorn and Apple, provoked controversy yesterday.

The PC format has so far failed to reach the same level of dominance in UK education as it has in other sectors, and this was the first time a government contract had been awarded exclusively to one supplier – UK company Research Machines. The National Council for Educational Technology said it had made the decision because of the wide range of software available in the format. Acorn said the decision "effectively denies schools their choice".

John Authers, Education Correspondent

Italian battery maker for Wales

Italy's leading manufacturer of batteries for fork-lift trucks and other materials handling equipment said yesterday it had made an initial £1m ($1.51m) investment in a plant in south Wales in a move to develop its European market coverage.

Fiamm, based in Montecchio Maggiore, near Vicenza in northern Italy, said it had bought the assets of Oakdale Batteries from the receivers and that it expected to employ about 50 people. Oakdale, which has a 25,000 sq ft factory at Crumlin, Gwent, had been a leading UK manufacturer of tractive batteries. Last December, its directors asked Barclays, its bankers, to appoint administrative receivers. About 60 people were made redundant.

Fiamm said it planned to invest £10m over the next four to five years. The company, which had a turnover of L700bn in 1995 and is the third largest European motive power battery maker, has plants in France, Austria and the US as well as in Italy.

John Simkins, Milan and Roland Adburgham

Landfill tax liability lifted

The British government last night abandoned controversial plans to make directors of companies personally liable for the payment of the new "green" landfill tax.

Mr David Heathcote-Amory, the paymaster general, said that he was sympathetic to critics of the liability clause which is contained in the finance bill. Treasury sources said that the government would support an amendment deleting the liability clause when it is debated on Thursday.

The result of the amendment will be that directors will only be liable if dishonesty is involved – as in the current value added tax provisions. It is understood that the government had been lobbied strongly over the scheme by the waste management business, the accountancy profession, and the Law Society. Critics said the clause undermined the tradition of limited liability.

Jim Kelly, Accountancy Correspondent

Decision expected on European channel rail link

By Charles Batchelor, Transport Correspondent

Eurotunnel, operator of the Channel tunnel, expects a 50 per cent increase to 580,000-600,000 in the number of trucks it carries through the tunnel this year over 1995, Mr Christian Zbylut, freight director, said yesterday. *Charles Batchelor writes.*

If one or more of the three ferry companies which operate between Dover, Folkestone and Calais decides to withdraw or reduce sailings then the increase for Eurotunnel could be even greater, he said. In 1995 it carried 391,000 trucks.

The number of trucks carried rose steadily last year as Eurotunnel increased the frequency of its freight shuttles. The company's claimed share of the market for accompanied trucks rose to 48 per cent in January 1996 from 20 per cent a year earlier.

Eurotunnel currently has the capacity to carry up to 3,900 trucks a day but this will be increased by 7 per cent later this year when an additional 16 shuttle wagons are delivered. It will rise again at the end of 1998 when two complete new shuttle trains are supplied.

Eurotunnel expects to place the order with a different supplier to the one, Breda of Italy, which supplied the first shuttle trains and believes it can obtain them for less than half the price.

The new trains will be of a simpler design and will also be cheaper to maintain. The order is due to be placed within the next few weeks.

In January Eurotunnel's cross-Channel shuttle services carried more than twice as many cars and trucks as in the same month a year ago, while the number of Eurostar high-speed trains rose more than threefold.

London & Continental Railways, the favoured bidder for the £3bn ($4.5bn) English Channel tunnel high speed rail link, is negotiating the final details of the package required to clinch the deal, rail industry managers close to the bid said yesterday.

Eurorail, the rival consortium, has not been ruled out of the bidding, but L&C has been in exclusive negotiations for the past 10 days and is believed to be finalising financial commitments with its bankers and settling legal details.

Sir George Young, the UK transport secretary, is expected to give a date for the announcement of a decision, or at least a closer indication of when it can be expected, when he answers a Commons question from Mr Jacques Arnold, Conservative MP for Gravesham, on the line of the route, next Monday.

Although both bidders have been working on their bids for at least two years it is not unknown for deals to fall apart in the final days of negotiations, when the bankers and providers of equity and other finance see the final details of a proposal and have to make firm commitments.

The UK department of transport is keen to keep open the possibility that Eurorail could be called back into the bid negotiations to maintain pressure on L&C and achieve last minute concessions.

Supporters of the L&C bid claimed that the financial arrangement for the bid were all in place, but backers of Eurorail said there were still important commitments "to nail down".

Eurorail's supporters acknowledged that the L&C bid gave a better deal to the department of transport in the short term but questioned the robustness of the financial arrangements needed to sustain the seven year project.

The L&C consortium consists of Mr Richard Branson's Virgin Group, the National Express coach company, UK civil engineers Ove Arup and Bechtel, the US construction group. The leading partners in the Eurorail consortium are two UK construction companies, Trafalgar House and BICC.

The link will the largest rail engineering project to be carried out this century. A decision on the 68-mile line, which will cut 30 minutes off journey times and link the Channel tunnel entrance with St Pancras Station in north London, is expected within the next week or so.

L&C is understood to have gained an edge because of the experience of Virgin and National Express in operating transport business whereas the Eurorail consortium does not have this expertise in-house.

The problems experienced in the construction of the Channel tunnel rail link, which in its early years was managed by a consortium of construction groups, are also believed to have prejudiced ministers and the City against projects managed by contractors.

But Eurorail's supporters said that transport management skills could be bought in while having construction companies in the consortium would reduce the conflicts between client and builder which often arise on such large projects.

ARTS

Dennis Franz, Kim Devaney and Jimmy Smits in 'NYPD Blue': makes the British cop series 'Take Thief' look like Enid Blyton

Television/**Christopher Dunkley**

US is top of the serial cops

As the baddie in ITV's *Thief Takers* pursued one detective, running along pointing a pistol at his head, another took out her gun and shot the villain dead. "Did you aim to kill?" asked one of her colleagues with a mixture of curiosity and admiration. "No, I aimed to really piss him off" replied the ballsy babe sarcastically. It was the best line in the script, but made possible by what is surely a departure from reality. I do not mean the presence of a female officer in the armed squad (though it is difficult to recall seeing a woman in any of the sieges by armed police covered by television news). This is television drama, and feminist rules require that reality be misrepresented in such matters for the good of... well, mankind as we used to say. But anyone who watches lots of British television will have gathered that, in the UK, armed police cannot use their guns at will. Evidence from fact and fiction programmes suggests that before having a pop at the baddies they have to shout "Stop! Armed police!", apparently several times.

Had our heroine done that, she would probably have brought the miscreant to justice without bloodshed. So why the departure from reality? The answer, surely, is that *Thief Takers* strives to look like an American series and in America all police officers are armed to the teeth and shoot on sight, with nothing so namby-pamby as a warning. Presumably the broadcasters felt that British viewers were so used to watching slam-bang American series that they would be bored with a drama that reflected the way the British police really behave. So they set the series in London, with lots of stunning night-time chopper shots of Westway in place of the Manhattan skyline, and then allowed everyone to look and act like Americans. There is even a black brother on the squad who goes around like B.A. Baracus out of *The A-Team*, complete with singlet, metal jewellery, and attitude.

It does not work, of course. Early impressions from the pilot episode that *Thief Takers* might bring back some of the speed and excitement that have been missing from British police series since the disappearance of *The Sweeney* are proving over optimistic. The trappings are there – good locations, squealing tyres, baseball caps – but the concept and the writing are not up to it. The episode described above opened with a splendid sequence showing a prison wall being breached with a bomb and the baddie walking free – but then it was all downhill. The characters, good and bad, are just not believable. Last week's episode seemed more concerned with the authenticity of its settings than the credibility of its plot or characters.

To watch *Thief Takers* and switch straight over to Channel 4 and watch *NYPD Blue* is to realise the absurdity of the traditional British claim about American television drama. The received wisdom is that the Americans make expensive, fast moving action series which are, however, shallow, repetitive, and aimed at the undemanding. The British, meanwhile, supposedly turn out material which is cheaper and less dynamic but more profound and aimed at the demanding viewer. Naturally you can find examples to support both stereotypes. In their worst episodes *Starsky And Hutch* and Charlie's *Angels* were pretty dreadful, whereas *Pride And Prejudice* and the first run of *Between The Lines* were both marvellous. But to pretend that the generalisation holds up is ludicrous.

In the entire canon of British police series there is not a character as complicated and subtle as *NYPD's* Detective Sipowicz who is an alcoholic (though now on the wagon) with a terrible temper. Last week his wife became pregnant and although she asked him to keep quiet about it, he "confidentially" informed everyone in the building. When she found out and wearily said "Look, don't tell anyone else" Sipowicz replied helplessly "I don't think I know anyone else". Last week's episode was virtually incomprehensible for those British viewers who do not realise that what Americans call the first floor of a building we call the ground. It involved a psychopath who killed women by standing on a milk crate and leaning through their bedroom windows on the first floor to stab them. The week before, the plot revolved around a former prison officer who, while working under cover for the District Attorney's office, tricked two detectives into dropping their guard so that they were shot. The subtlety and interplay of the vested interests involved made *Thief Takers* look like Enid Blyton.

Somewhat unhappily even *The X Files* is superior to most contemporary British serial drama in many ways. "Even" because this series is really little more than an up-to-date version of sword and sorcery, with agents Mulder and Scully wielding the swords, and unhappily because so many people need so little encouragement to believe in superstitious twaddle, whether ancient or "new age".

The X Files, which looks exactly like a serious detection series, lacking even a hint of the self ridicule in, say, *The Avengers*, adds considerable reinforcement to the belief, already widespread, that magic, and the supernatural generally, are on a par with science and rational thought. Though Scully is sceptical, Mulder goes with the flow and, as in last week's episode where he drove out the child's devil by joining in the ritual mounted by ancient Romanian "Calusari", his willingness to believe in anything is shown to pay off.

NYPD Blue was created by Steven Bochco who was also responsible for *Hill Street Blues* and *LA Law*. Now he has taken the law-office setting of *LA Law* and the concentration of interest found in the real-life O.J. Simpson trial and created *Murder One*, a drama serial of 23 one-hour episodes all centred upon a single crime. It started transmission on Sky Movies at the beginning of January and a look at the opening episodes suggested that here, once again, the Americans have a thing or two to teach their British colleagues. More on *Murder One* in next Saturday's column.

British television drama has plenty to offer in addition to *Middlemarch* and Jane Austen. Current series which range from the adequate to the quite good include *Our Friends In The North* and *A Mug's Game* from the BBC and, from Channel 4, a new soap opera set in the Houses of Parliament and named after one of the most famous spots in there, *Annie's Bar*. The opening episode was quick, funny, and – if not as wicked as the best of *Spitting Image* – still quite pleasingly naughty. But if it is fast-paced crime series that you are after, the Americans are still streets ahead.

Opera in Brussels/**David Murray**

Powerful new perspective on Khovanshchina

In Brussels, the Théâtre de la Monnaie has mounted Mussorgsky's *Khovanshchina* to stirring effect. La Monnaie is bilingual Belgium's long-standing "French" house, and De Vlaamse Opera – Flanders Opera, playing alternately in Antwerp and Ghent – the competing "Flemish" company; but now that both teams have espoused opera-in-the-original-language, the differences between them are vanishing.

La Monnaie's remarkably impressive original-language *Khovanshchina* shows why. In the six principal roles there are three distinguished Russians, a Norwegian (Ronnie Johansen, an uncommonly positive Shaklovity), an upstanding American tenor (Jacque Trussel, despite his name) as the westernising liberal Golitsyn, and Willard White – our own Jamaican bass-baritone – as Prince Khovansky, whom he also sang in the new ENO production just over a year ago. The keen, intelligent producer is another Norwegian, Stein Winge, and the American conductor Paul Daniel is on loan from our Opera North.

Yet the Belgian component is weighty, for it comprises not only some smaller roles and of course the orchestra, but the multiple choruses – superbly rehearsed, at greater length than any British company can afford – who carry so much of Mussorgsky's drama. Daniel and Winge agree about that: the subject of *Khovanshchina* is only secondarily the factional struggles that seethed around the advent of Peter the Great, "modern" westernisers pitted against feudal boyars against Old Believers who recognised only an antique, puritanical orthodoxy. The real heroes of the piece are the Russian people, doggedly unchanging while the politicos rant and murder each other.

That has always been a plausible view of Mussorgsky's operatic score, which he left uncompleted as a rich, disorderly portfolio of sketches, with only two numbers fully orchestrated. Daniel and Winge have tightened it purposefully, making cuts which, they claim, match Mussorgsky's own intended excisions: not only the weak scene with the Lutheran pastor, and some marginal kerfuffles, but even the bigoted Old Believer Susanna's denunciation of lovelorn Marfa's sins.

They read that shrill scene as a reluctant, second-thoughts' concession to the composer's incurably liberal friend and proselytiser César Cui, for whom the Old Believers were no more than deplorable historical relics. Rightly, as I think, they choose to respect Mussorgsky's more even-handed, detached sympathy for everybody. He devotes the whole of the final Act 5, after all, to the Old Believers' collective self-immolation in the face of Peter's implacably "modern" forces.

What moves them may be mysterious, but it is not just crazy fanaticism. It should move us, and it does here. Mussorgsky had written hardly anything down for their apotheosis before his premature demise; all we know is which old hymns he had chosen for the basis of the scene, and (roughly) how he meant to treat them. Rimsky-Korsakov's well-meant, full-dress version – until recently, the standard one – "corrected" Mussorgsky's idiosyncratic harmony beyond recognition, and both his and Shostakovich's more faithful but Soviet-optimistic redraftings contrived to suggest some "new dawn" after the blunt tragedy, as did Stravinsky's 1913 draft for Diaghilev's company.

In the Daniel-Winge conception, orchestrally realised by J. David Jackson, there is no dawning promise. The Old Believers immolate themselves, which is understandable but bleak; their voices soar fervently while they can, and Rimsky's flame-figures (authentically Mussorgskian, surely) continue to flicker in the orchestra; that is all, timeless and non-judgmental. Nothing else comes. We are left with the sense of something solemn but open-ended, a clouded, unpromising future against a rich but hopeless past.

The superbly rehearsed Belgian choruses carry so much of the drama

When the ENO mounted its brave *Khovanshchina*, I remarked that it needed only some real Russians to fill out the characters in pungent breadth. La Monnaie has those (unstinted state support is a blessing!) in Elena Zaremba's rapt, other-worldly Marfa, Vladimir Bogachov's good-for-nothing Khovansky-*fils* and above all Anatoly Kotscherga's saintly, impersonal Dosifey, leader of the Old Believers.

His stark bass authority outweighs White's silken warmth as Khovansky *père*; but just for that reason, White's Khovansky acquires twice the depth he had at the ENO – a lesser political figure here, but a proud, brittle, vulnerably appealing Prince. Trussel's Prince Golitsyn is last seen abjectly stripped and lost, borne upon the swirling mob that sees him into exile.

Winge's production takes no sides. Mussorgsky's music is allowed to assign its own weightings, and the characters expand without help or hindrance from any *parti pris*. The staging, even barer than the ENO's (timeless Russian mufti for the plebs, Mafia garb for the modernisers), gains sharper force in La Monnaie's close quarters. And Daniel invests the score with intensely detailed feeling as well as imposing scope and breadth; it makes a grand epic, disturbing in exact proportion to its long, dispassionate view.

Supported by Credit Communal/Gemeentekrediet; further performances at Brussels February 8, 11, 13, 15 & 17.

Theatre/**Simon Reade**

Fugard's 'Valley Song'

Until Nelson Mandela walked to freedom, Athol Fugard was South Africa's (white) liberal conscience, certainly to theatre-goers. Fugard's latest play, *Valley Song*, is playing to a (white) middle-aged liberal intelligentsia at the Royal Court, direct from New York, *en route* to Sydney.

Fugard is directing himself in his own play, appearing as not one, but two characters: the white Author and, wearing a woollen hat, the coloured 76-year-old Buks. Neither character can come to terms with the new South Africa as represented by Buks' 17-year-old grand-daughter, Veronica (Esmeralda Bihl). Both men are obsessed with a handful of pumpkin seeds, "a handful of miracles", sowing them in the fertile soil of the Karoo to reap a good harvest (soil which both men lasciviously liken to a woman, and then sanctify it with psalms). For Veronica, "a girl can't make adventure and romance out of pumpkin seeds." Veronica is no Cinderella.

She stands on her box peering over the fence at the white lady's television. Thus she can imagine when her grandfather was a soldier: "Like on TV, with a gun". She sings (off key) about a "railway bus" taking her away to Jo'burg. "When I sing, I'm alive." For Buks, this "brings back memories of a past I've been trying to forget".

Meanwhile, the Author has been bleeding his liberal heart: "Had my few thousand rand really bought me ownership of that land? Buks put his first seed into that land when he was only a few years old. His life is as deeply rooted in that soil as the walnut tree next to the windmill." That is old South Africa's legacy to the new, and Fugard's treatment of the theme becomes increasingly sentimental: "The truth is," the Author tells Veronica, "I'm not as brave about change as I'd like to be. It involves letting go... I'm jealous of your youth, your dreams."

Like Veronica's singing, the production, which promised to be an event, proves off-key. This solipsistic parable shows scant insight and does not add up to a play.

Valley Song is at the Royal Court Theatre until March 5 (0171-730-1745).

Concert

Czech debut with the BBC

Unlike the independent orchestras, the BBC Symphony is under no great pressure to find world-famous names to conduct it: non-famous but good will do nicely. Its new principal guest conductor, the Czech Jiří Bělohlávek, fills the bill admirably. He has visited London before, but last week he made a first public appearance in his new role with the Symphony, with an enterprising programme devoted to music of his native land.

It made an excellent concert, interesting and thoroughly rewarding. The only tolerably familiar work was Janáček's epic tone-poem *Taras Bulba*, which he saved for a rousing finish; before that we heard rare-ish Dvořák, *The Wood Dove*, and two pieces by Martinu and Petr Eben (b. 1929) which will have been unfamiliar to almost everybody.

Eben's quarter-hour-long *Prague Nocturne*, subtitled "Hommage à W.A.M." (meaning Mozart), proved fascinating. Based on Mozartean figures and cadences, with just a hint or two of literal quotation, it evokes a melancholy, crepuscular Prague in an original tone of voice. Eben is clearly worth exploring. *The Wood Dove* is late Dvořák, a sinister fairy-tale in which each episode is limned with a sure orchestral hand. Played as subtly and pointedly as it was here (mocking, sentimental trumpet, cascades of sighing strings) it sounded like top-drawer Dvořák.

Martinu's 4th piano concerto, subtitled "Incantation", is another late piece (1956), from the composer's American period. By then he had cottoned on to the extrovert rhetoric of postwar American music; the combination of that with his characteristic quirkiness is spicy and tantalising. The young Czech pianist Igor Ardašev delivered it dashingly, almost recklessly.

Taras Bulba made a fine blaze at the end, and Bělohlávek built it up with scrupulous sympathy. This is a distinguished musician, and if the BBC Symphony goes on playing as well as it did for him here – alert, bright, responsive – we can look forward to many exciting concerts.

D.M.

INTERNATIONAL ARTS GUIDE

■ BARCELONA

EXHIBITION
Museu Picasso Tel: 34-3-3196310
● Picasso and Els Quatre Gats: this exhibition brings together a selection of paintings and drawings created by Picasso between 1898, the time of his immersion into Catalan cultural life, and 1904, the end of his so-called Blue Period. The display centres around Picasso's first exhibition, in the beer cellar Els Quatre Gats in February 1900. The exhibits come from the collections of the Museu Picasso, the Musée Picasso in Paris, the Metropolitan Museum in New York, the Neue Pinakothek in Munich and other museums; to Feb 11

■ BERLIN

CONCERT
Konzerthaus
Tel: 49-30-203092100/01
● Berliner Sinfonie-Orchester: with conductor Marc Albrecht, violinist Heinz Schunk, cellist Friedemann Ludwig, oboist Aldona Kosel and bassoonist Rainer Luft perform works by Delius, Haydn and Mendelssohn; 8pm; Feb 10, 11 (4pm)
OPERA
Komische Oper Tel: 49-30-202600
● Die Entführung aus dem Serail: by Mozart. Conducted by Yakov Kreizberg and performed by the Komische Oper; 7.30pm; Feb 10

■ BONN

DANCE
Oper der Stadt Bonn
Tel: 49-228-7281
● Ein Sommernachtstraum: a choreography by Yuri Vàmos to music by Mendelssohn, performed by the Ballett Bonn; 7pm; Feb 10

■ BUDAPEST

EXHIBITION
Hungarian National Gallery
Tel: 36-1-17575333
● The School of the Hague: exhibition of works by the painters of the Hague School, a group of Realist artists who worked in Holland between 1860 and 1900 reviving many of the traditions of 17th-century Dutch landscape and architectural painters. The display includes paintings by Joseph Israels, Mesdag and others, as well as some early drawings by Van Gogh. The exhibits come from the collection of the Haags Gemeentemuseum in The Hague; to Feb 11

■ COPENHAGEN

EXHIBITION
Statens Museum for Kunst - Royal Museum of Fine Arts
Tel: 45-33 91 21 26
● Christen Koebke: retrospective exhibition devoted to the work of this Danish artist (1810-1848), one of the most important painters of the Danish Golden Age. Koebke painted portraits, landscapes and architectural paintings. The display includes paintings, drawings and prints from European and American collections; from Feb 10 to May 5

■ FRANKFURT

EXHIBITION
Schirn Kunsthalle
Tel: 49-69-2998820
● Inoue Yu-Ichi: part of a tripartite exhibition of the work of this Japanese artist (1916-1985). The paintings and drawings on display show the bombardments of Hiroshima. Work by this artist is also exhibited in the Museum für Kunsthandwerk and the Karmeliterkloster in Frankfurt; to Feb 11

■ HELSINKI

OPERA
Opera House Tel: 358-0-403021
● The Last Temptations: by Kokkonen. Conducted by Kari Tikka and performed by the Helsinki Opera. Soloists include Martti Wallén, Satu Vihavainen, Pertti Mäkelä and Hellevi Seiro; 7pm; Feb 8

■ LONDON

AUCTION
Phillips Tel: 44-171-6296602
● Scripophily & Paper Money: highlights include an American Express Co. share and a 1921 collection of Portuguese notgeld; 0.30pm & 2pm; Feb 8
CONCERT
Barbican Hall Tel: 44-171-6388891
● Nikolai Demidenko: the pianist performs works by Chopin and R. Schumann; 4pm; Feb 11
Wigmore Hall Tel: 44-171-9352141
● International Songmakers at Wigmore Hall: soprano Christine Schäfer, mezzo-soprano Stella Doufexis and baritone Christopher Maltman, accompanied by pianist Graham Johnson, perform songs by Berg, Mahler, Britten, Wolf and others; 7.30pm; Feb 9
OPERA
Royal Opera House - Covent Garden Tel: 44-171-2129234
● Samson et Dalila: by Saint-Saëns. Conducted by Jacques Delacôte and performed by The Royal Opera. Soloists include Dolora Zajick, José Cura, Robin Leggate and Roderick Earle; 7pm; Feb 10

■ LYON

DANCE
Opéra de Lyon Tel: 33-72 00 45 45
● Lyon Opéra Ballet: perform Jiri Kylián's Stamping Ground to music by Carlos Chavez, William Forsythe's Second Detail to music by Thom Willems and Martino Müller's Le Jour Même to music by Steve Reich, Henrik Rickels and Gavin Bryars; 8.30pm; Feb 9, 10

■ MUNICH

EXHIBITION
Villa Stuck Tel: 49-89-4555510
● Marina Abramovic: exhbition of installations by Marina Abramovic, organised in co-operation with the Museum of Modern Art in Oxford; from Feb 8 to Apr 8

■ NEW YORK

OPERA
Brooklyn Academy of Music
Tel: 1-718-636-4111
● Orlando: by Handel. Conducted by William Christie and performed by Les Arts Florissants; 8pm; Feb 9 (7pm), 10, 12, 13

■ PARIS

CONCERT
Salle Pleyel Tel: 33-1 45 61 53 00
● Orchestre Philharmonique de Radio France: with conductor Alain Lombard perform Brahms' Symphony No.1 and Prokofiev's Symphony No.5; 9pm; Feb 10
OPERA
Théâtre de l Opéra Comique
Tel: 33-1 42 44 45 46
● The Turn of the Screw: by Britten. Conducted by Dominique Debart and performed by the Opéra Comique and the Ensemble orchestre régional de Basse-Normandie. Soloists include Emmanuel Lanièce (Feb 9, 11), Sébastien Brohier (Feb 13), Juliette Vergnaud (Feb 9), Kehna Benhaiem (Feb 11) and Lucie Davienne (Feb 13); 7.30pm; Feb 9, 11 (4pm), 13
THEATRE
Comédie Française, Salle Richelieu Tel: 33-1 40 15 00 15
● Phèdre: by Racine. Directed by Anne Delbée. The cast includes Catherine Samie, François Beaulieu and Martine Chevallier; 8.30pm; Feb 8

■ STOCKHOLM

OPERA
Kungliga Teatern - Royal Swedish Opera House Tel: 46-8-7914300
● La Traviata: by Verdi. Conducted by Kjell Ingebretsen and performed by Royal Opera Stockholm. Soloists include Lena Nordin, Jonas Degerfeldt and Tord Wallström; 7.30pm; Feb 8, 12

■ STUTTGART

OPERA
Staatstheater Stuttgart
Tel: 49-711-20320
● Salome: by R. Strauss. Conducted by Gabriele Ferro and performed by the Oper Stuttgart; 7.30pm; Feb 8, 13 (8pm)

■ WASHINGTON

EXHIBITION
National Gallery of Art
Tel: 1-202-7374215
● Johannes Vermeer: the first exhibition ever devoted solely to the art of the Dutch painter Johannes Vermeer (1632-1675) presents 21 of the existing 35 works known to have been painted by this master who lived and worked in Delft; to Feb 11
OPERA
Eisenhower Theater
Tel: 1-202-467 4600
● Verlobung im Traum: by Krása. Conducted by Israel Yinon and performed by the Washington Opera and the Nationaltheater Mannheim. Soloists include Brigitte Hahn, Mildred Tyree, Peter Parsch, Joseph Wolverton, Josepha Gayer, John Shirley-Quirk and Julia Anne Wolf; 7.30pm; Feb 8, 10

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Financial Times Business Tonight

Ian Davidson

Beyond the catcalls

British reactions to the speech by Helmut Kohl on European integration are so irrational they smack almost of hysteria

There was a time when the British used to pride themselves on their national talent for calm and commonsense. Foreigners might froth and foam, but the British would keep cool. Where Europe and European integration are concerned, however, the political class seems to have lost not just its traditional sangfroid but also any sense of rational tactics or strategy. It is as if the British people were in the grip of some self-destructive collective madness.

Last week Helmut Kohl, the German chancellor, told an audience in Louvain, Belgium: "The question of war and peace in the 21st century really hinges on the progress of European integration."

You might think that such a proposition represents a tenable point of view, even bordering on the conventional. Coming from someone who is old enough to remember the second world war and has some historical sense of previous wars, you might think the comment was entirely understandable, especially when made by a German. And if you have heard that the explicit and over-riding purpose of the French, Germans, Belgians and others who founded the European Community was to make another European war impossible, then you might even recognise it as part of the Community's ancient orthodoxy: well-worn perhaps, outdated conceivably, but nothing worse than a platitude.

In Britain, however, it has elicited a storm of denunciation and derision, often on contradictory grounds and from opposite ends of the political spectrum.

On one side there are those saying: "What nonsense! He's just trying to frighten us into submitting to his prescription for a federal mega-state in Europe. But of course there isn't going to be any war. So we don't have to be frightened of this bogey. We can safely jeer and whistle our catcalls."

Others say: "You see! The Germans haven't changed: they're at it again. He's threatening us with war, so we must stay well clear of all of them!"

British reactions to the Kohl speech are so irrational they almost smack of hysteria. They certainly cannot help in reaching an understanding of what he is talking about, let alone in working out the best way to respond.

In the first place, it seems to me that anyone who claims to be certain there won't be another major war in Europe is either ignorant or infantile. After all, we are now witnessing the winding-down of a murderous four-year war in the former Yugoslavia. But nobody predicted it, just as nobody predicted the outbreak of the general "peace" in Europe, which was its immediate cause.

Can anyone find a rational paradigm to justify or explain the outbreak of the first world war? Can we really exclude the possibility that new wars may yet break out as an indirect legacy of the first and second world wars? Hungary lost two thirds of its territory to its neighbours after the first world war, and that could one day be a cause of another military conflict as the substantial Hungarian minorities in neighbouring countries, such as Slovakia, pursue self-determination. Germany and the Czech Republic have still not resolved their quarrel over the expulsion by the Czechs of 3m Germans from Sudetenland after the second world war. And no-one can be sure that Russia's conflicts in the Caucasus region may not spread west.

But I am not suggesting that war will automatically, or even probably, break out if the European Union does not move towards the kind of federation Germany wants, and nor, it seems to me, is Mr Kohl.

What he probably does mean is that the European Union, with its common institutions, rule of law and democratic principles, is a factor of stability in Europe; that if integration were to come to a halt, or even be reversed, Europe would become more unstable, possibly even dangerous; and that more integration is vital if the union is to be strong enough at the centre to handle the massive frictions and conflicts of interest when it is enlarged to take in another 10 to 12 countries of eastern Europe.

It is, of course, entirely possible to disagree with this point of view. Some people may believe that the EU would be a more relaxed, a more peaceful and, therefore, a more stable enterprise if it were a looser organisation with fewer common policies, less majority voting and no monetary union.

But Britain is not called on to decide whether Mr Kohl is on intellectually firm ground, or whether his fear of war is well founded. The essential question for Britain is, first, whether he means what he says about the kind of Europe he wants and, second, whether he is in a position to drive events the way he wants them to go. This is not an intellectual argument to be settled in some academic seminar, let alone in a shouting match in a school playground.

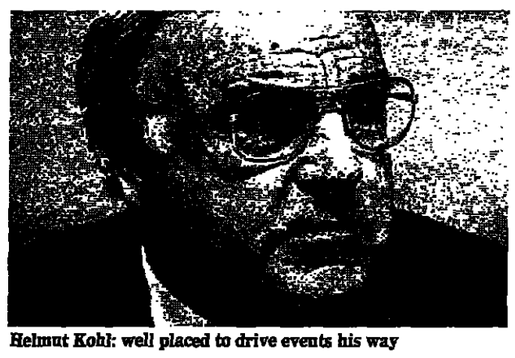
Of course, there can be an element of rational argument, but it will be useful only if it is conducted with a minimum of intellectual honesty.

Last week in an article in the FT, Mr Douglas Hurd, the former foreign secretary, called for a delay in monetary union. He claimed: "It was not seriously argued on economic grounds at the time of the Maastricht conference that a single market required a single currency."

This assertion is demonstrably false. The preparation for Maastricht was lengthy and thorough – and included the 1987 Padoa-Schioppa report on economic integration and the 1989 report of the Delors Committee on monetary union. The treaty was explicitly based on the proposition that a single currency was required for the four freedoms of movement – of goods, people, services and capital.

But it does not seriously matter what was argued at the time of Maastricht. The relevant fact is that many EU governments are now convinced of the link between the single market and the single currency, including most of those which are likely to join a single currency. So if the UK decides to stay out of monetary union, it may find it risks jeopardising its access to the single market.

As for my two questions: my guess is not only that Mr Kohl means what he says but is fairly well placed to drive events his way. Why? One simple reason: he has allies. Britain has none, and is reduced to catcalls and derision.



Helmut Kohl: well placed to drive events his way

LETTERS TO THE EDITOR

Number One Southwark Bridge, London SE1 9HL

We are keen to encourage letters from readers around the world. Letters may be faxed to +44 171 873 5938 (please set fax to 'fine'). e.mail: letters.editor@ft.com Translation may be available for letters written in the main international languages.

No subsidy for Forbes

From Mr Philip McBride Johnson.

Sir, That the Financial Times would support taxpayer subsidy of political job hunting, as in your editorial "Forbes' funds" (February 5), is surprising. Here in the US, many of us think that the resulting free hand-out to candidates only heightens their disdain (or ignorance) about other people's money. If they want the job bad enough, they should do what is expected of the rest of us - earn it or borrow it, but surely not burden taxpayers for the sake of their own ambitions.

This view is neutral and non-partisan. History tells us that there are rich folks in both leading parties. Is it better for Steve Forbes to put his own wealth at risk or our modest earnings? It is those who say the latter from whom we have the most to fear.

Philip McBride Johnson,
10002 Thompson Ridge Court,
Great Falls,
Virginia 22066, US

Cash injection requires return

From Mr Robert Ayling.

Sir, Mr Stephen Kinsella (Letters, February 5) is right to point out that the Spanish government was entitled to look at the question of a further injection of cash into Iberia in the same way as a holding company would look at investment in a subsidiary in financial difficulties. A private investor, however, would only inject cash if he could see an adequate return on his investment within a reasonable time. The same test must apply to governments. But governments have political objectives and sensitivities which often override commercial considerations.

Neil Kinnock, the European Union transport commissioner, deserves credit for trying to introduce transparency and discipline into what has in the past been a scandalously politicised area of the Commission's activities. We shall be able to make a better judgment when we have seen the Commission's full decision which will include, we hope, Deloittes' report on Iberia's state of affairs and prospects.

Robert Ayling,
chief executive,
British Airways,
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Hounslow TW6 2JA, UK

Move will not raise French radio quality

From Mr Simon Larter.

Sir, The great problem with the Pelchat amendment, discussed by Andrew Jack in his article "Vive la musique Française!" (February 5), is that it refuses to accept that a good deal of French popular music is, by comparison with Anglo-American pop, very poor.

It may be that the 40 per cent rule does encourage greater investment in French music "if only the motives were so pure". But it would seem unlikely that this imposition on broadcasters in France would increase the quality. The demand for volume in the global TV market has proved that supply and demand in this context has only served to degrade quality. It would be a shame if the amendment pushes the French market into accepting even lower standards. It may also limit their potential to export.

On the other hand, the opportunities are far reaching. As record producers find that their markets are more difficult to exploit in countries where Anglo-American produced music is their core product, then they could easily set up in France to produce quality songs for a market which suddenly has a great need.

This may improve the overall quality of the French music industry.

Simon Larter,
86 Dresden Road,
London N19

Joy of operating German-based stakeholder culture in UK

From Mr Robert Bischof.

Sir, Samuel Brittan's article "The snares of stakeholding" (February 1) shows that it seems impossible for Anglo-Saxon economists to comprehend that there can be an alternative model to the one that states that shareholder value comes first, second, third, fourth – and that it delivers better results as well.

After the second world war a number of professors were charged to create a model for a democratic Germany. Among them were Mueller-Armack, Roepke, Hayek and Erhard. They created a system which was built on the principle that neither of the two old antagonists, Labour and Capital, should be allowed to dominate the other. It was a clear NO to communism and it was a clear no to laisser faire capitalism, which had allowed Hitler to exploit its weaknesses – booms and busts and mass unemployment.

They designed a new system, in which the two sides are in partnership in the wealth creation process. The street name of this system is social market economy – some now call it Rheinland capitalism. It has been in all departments for five decades a superior system to the Anglo-Saxon model. It has given their people a much higher standard of living and it has therefore been the model for many countries, lately also for the new east European democracies.

In corporate governance terms, it means that the management board runs the business on a day-to-day basis. In all significant decisions, however, it has to consult the supervisory board, where half the members are representatives from blue-collar and white-collar employees and middle management and the other half consists of shareholder representatives with the chairman having the casting vote. The supervisory board also controls the performance of the management board at close quarters. Decisions are in more than 99 per cent of cases unanimous.

The problem with Germany's system is not its basic principle, but that it has been perverted by a mass of legal and institutional red tape. It is also true that it has led some German management boards to be too preoccupied with seeking consensus and with pursuing long-term strategies, where tough decisions were needed. Shareholders have been neglected in favour of customers, market share and employees from time to time. Germany is addressing these problems and will introduce no doubt a bit of tough Anglo-Saxon profit thinking in future.

In Boss, like in most continental and Japanese owned companies, we have of course the best of both worlds: We practice our stakeholder culture and are not restricted by the paraphernalia of an institutionalised framework. Hence it's such a joy to run companies in Britain.

Robert Bischof,
chairman,
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At loggerheads on the law

Andrew Jack on the row in France over attempts to soften anti-corruption legislation

France's magistrates have waged an increasingly fierce fight against corporate corruption in the last few years, launching investigations against dozens of well-known executives and politicians, and hundreds of minor ones.

Now those under attack are beginning to fight back, demanding reforms to the laws being used against them and creating deep divisions between magistrates, politicians and business people.

For some, the existing legislative weapons wielded by judges are too harsh on those accused of corruption. But others argue that a softening of the law would let companies get away far too easily with murky and illegal practices.

The legal offence at the heart of the debate is *abus de biens sociaux*, which translates as "misuse of corporate property" and carries a maximum penalty of 5 years' imprisonment and a FFr2.5m ($500,000) fine.

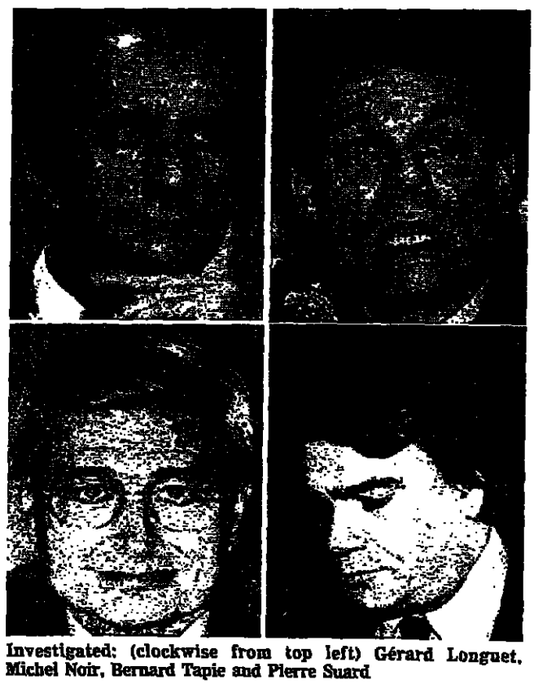
It has become one of the most frequent charges made against the heads of companies suspected of corruption, and is often used as the basis of a formal investigation by a magistrate.

But critics argue it is now being interpreted far too broadly. "It is a judicial aberration which cannot be justified on the grounds of equity," says Mr Kiril Bougartchev, an advocate with Gide Loyrette Nouel, the French law firm, in Paris.

The debate was fuelled late last year when Mr Pierre Mazeaud, the Gaullist politician who heads the National Assembly's law commission, published his plans to soften the impact of anti-corruption legislation. "The real problem in our country is unemployment," he said this week. "If the sword of Damocles [of the law] is hovering over a chairman, he will move elsewhere and we will have more unemployment."

Among those currently ensnared by charges of *abus de biens sociaux* are Mr Pierre Suard, former head of Alcatel Alsthom – who did threaten to move his group outside France following the accusations made against him – and Mr André Kamel, the head of Dumez-Kamel International and an adviser to Mr Jérôme Monod, chairman of Lyonnaise des Eaux, the utilities and construction group. Another is Mr Bernard Tapie, the businessman and former Socialist minister.

A number of leading politicians are also under investigation for the corresponding offence of "receipt of misused corporate property". They include Mr Gérard Longuet, the former defence minister who was forced to resign in 1994. Mr Michel Noir, a former mayor of Lyons, was recently found guilty.



Investigated: (clockwise from top left) Gérard Longuet, Michel Noir, Bernard Tapie and Pierre Suard

Mr Mazeaud wants to introduce a time limit so the offence can only be pursued by the judiciary for up to six years after it has been committed. At present, it can be pursued indefinitely – long after relevant evidence may have disappeared – while other corruption offences have a limit of three years. Apart from *abus de biens sociaux*, only crimes against humanity have no expiry date in France.

Business argues that Mr Mazeaud does not go far enough. Executives often complain in private of the injustices they face, but they are reluctant to speak publicly or criticise the judiciary, since they are often either already under investigation or vulnerable to probes in the future.

However, the Patronat, the employers' federation, came out in November 1994 with a report calling for a tighter definition of the offence and a time limit. Similar arguments were made in a report made public last month by the Paris Chamber of Commerce and Industry.

Even Mr Xavier de Roux, the *rapporteur* or secretary for the parliamentary law commission and a partner with the law firm Gide, opposes Mr Mazeaud's draft, arguing the real problem is poor interpretation of the existing legislation. He called this week for a circular from the Justice Ministry clarifying the position.

As he sees it, successive rulings made by judges over the years have drifted away from the strict legal definition of *abus de biens sociaux*, broadening its scope to incorporate acts which bear little relation to the original intention of the law – which was to prevent wilful removal of funds from a company against its interests.

His colleague, Mr Bougartchev, argues that the recent application of the law has embraced actions which may have been unintentionally carried out by a company without an executive's knowledge or wishes, and others which may be illegal but which clearly benefit a company, such as a bribe to win a contract.

"I am not saying these acts are justifiable, but they are a separate type of offence," he says. "*Abus de biens sociaux* is becoming a catch-all infraction. Little by little its definition is going astray."

Such arguments find little sympathy among the most vocal opponents of change to the existing law, the magistrates. "The proposition would risk considerably hindering judges," says Mr Jean-Claude Bouvier, secretary-general of the Magistrates Union, reflecting views held by most professional bodies.

He says that imposing an expiry date would be dangerous because the corruption issues under investigation are complex and often take time to emerge – perhaps being discovered only after a tax inspection, an end-of-year audit or bankruptcy. He stresses that in practice, few investigations begin more than six years after the suspected offence took place.

More importantly, he argues that the existing law is an essential starting point for the current national anti-corruption drive. "Most of the big political-financial scandals in France started with the discovery of *abus de biens sociaux*," he says.

"France is a country with extraordinary ambiguities and opacity," he says. "Adequate control mechanisms hardly exist in France. Shareholders have little power and auditors are paid by the company so they are not totally independent. We need this law until there are strong institutional mechanisms in the struggle against corruption."

The storm created by Mr Mazeaud appears to have led the government to distance itself from his proposals, and hence from any suggestion that it is willing to be soft on corporate abuse.

The Justice Ministry now says that it has no plans to incorporate the ideas into its own broader legislative programme, and that there is no space for the reform on the parliamentary calendar.

It is too early to assess how unjust the charges of *abus de biens sociaux* are really proving to be in France, since most of the current investigations have yet to reach the courts. In the meantime, the effect in boardrooms has been to focus executives very carefully on the possible legal implications of their actions.

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Demerging British Gas

Ten years after privatisation, British Gas has finally dispensed with the legacy of Sir Denis Rooke, the autocratic former chairman who fought so hard to prevent the government selling the business off in parts. Its announcement that it plans to split into two separately listed companies is long overdue, though the move will not of itself solve the serious problems facing the group.

Three years ago the Monopolies and Mergers Commission convincingly argued that the government should break British Gas in two. It said the company suffered from an inherent conflict of interest, harmful to competition, in being both a seller of gas and owner of the transport system which its competitors had to use. Ministers, fearing this might delay their plans for greater competition, and still seeing the company as a national champion, merely insisted that the two businesses operate as legally separate entities under the group umbrella.

Now British Gas, despite its long tradition of resistance to change, has suddenly chosen to demerge. Mr Richard Giordano, the chairman, explains this will make management focus on competition, will ease the regulatory burden and will help the group recover the public goodwill it has lost through controversy over its executive pay and service quality.

However, the award of a £120,000 consultancy contract to Mr Cedric Brown, the retiring chief executive who was at the heart of the pay controversy, suggests a continuing lack of political sensitivity over compensation.

The structure of the demerger indicates that Mr Giordano also aims to use it as a lever in reaching a settlement of British Gas' dispute with North Sea producers over "take-or-pay contracts", which require it to buy gas at prices far above the prevailing market levels.

Unless that problem is solved, British Gas Energy, the new trading company, will be a vehicle of very limited investor appeal. It will inherit the "take-or-pay" contracts – with their potentially huge liabilities – and a domestic market about to face the full blast of competition. More positively, it will also include the huge Morecambe gas fields, and a production capability which may give it leverage in its "take-or-pay" negotiations.

Its management will have a powerful incentive to reach agreement with the producers, who in turn may be more willing to compromise once British Gas' attractive transportation, exploration and production businesses are in a separate company.

A wider question is whether the demerger goes far enough. A good case can be made for separating the domestic transportation utility from the more international exploration and production side, though the latter would look a much weaker vehicle with the Morecambe fields stripped out.

British Gas may be hoping that ministers will be persuaded by the trading company's highly uncertain financial position, and 19m customers, to relent on their refusal to grant it compensation over the "take-or-pay" contracts. But the government should refuse to get involved. The contracts are commercial undertakings which British Gas was happy to take on in monopolistic days and it should pay the price for these misjudgments.

Aznar's plans

Question: how do you win next month's Spanish election on a platform of austerity and self-discipline? Answer: you keep the details to yourself. This appears to be the thinking behind the election programme unveiled yesterday by José María Aznar, leader of the Popular party and odds-on favourite to be Spain's next prime minister.

Mr Aznar's lead in the opinion polls suggests that the voters are ready for a change. But, with just four weeks to go until polling day, he is not taking any chances. His wide-ranging election programme promises change without far-reaching reform, and austerity without, it seems, any pain. This may help him shore up support from those who feared a Thatcherite break with 15 years' social democracy, but it provides little clue to what he might do in office.

The plans for the budget are a case in point. Mr Aznar's determination to see Spain qualify for any "first wave" of entrants to European monetary union has been the touchstone of his campaign to date. But his plans for getting the public finances back on course are verging on the disingenuous.

As the Organisation for Economic Co-operation and Development pointed out in its recent survey on Spain, no government will be able to achieve long-term reductions in public borrowing without reforming the country's bloated and inefficient social security system. Yet Mr Aznar is now promising to leave the mass of pensions, public health services and unemployment benefits untouched. Instead, the deficit will be reduced with a more palatable – but less credible – programme of cuts in administrative spending, and speedier sales of state assets.

Administrative costs make up a tiny share of overall spending: even draconian cuts in "fraud and abuse" would make little dent on the deficit. Mr Aznar's privatisation proposals are trickier to assess, since he has yet to reveal which companies he would like to sell off. Nor, perhaps more important, has he indicated a possible timetable.

The Popular party has clearly learned a lesson or two from President Jacques Chirac's travails since taking office in France. If it wins power, the vagueness of this programme may protect it from cries of treason when it comes to tackle the country's fiscal problems against a background of 23 per cent unemployment. On balance, the business community still believes that Mr Aznar will do a better job of facing up to the country's economic challenges than the incumbent. But as even his strongest supporters must admit, he has a funny way of showing it.

Irish beef

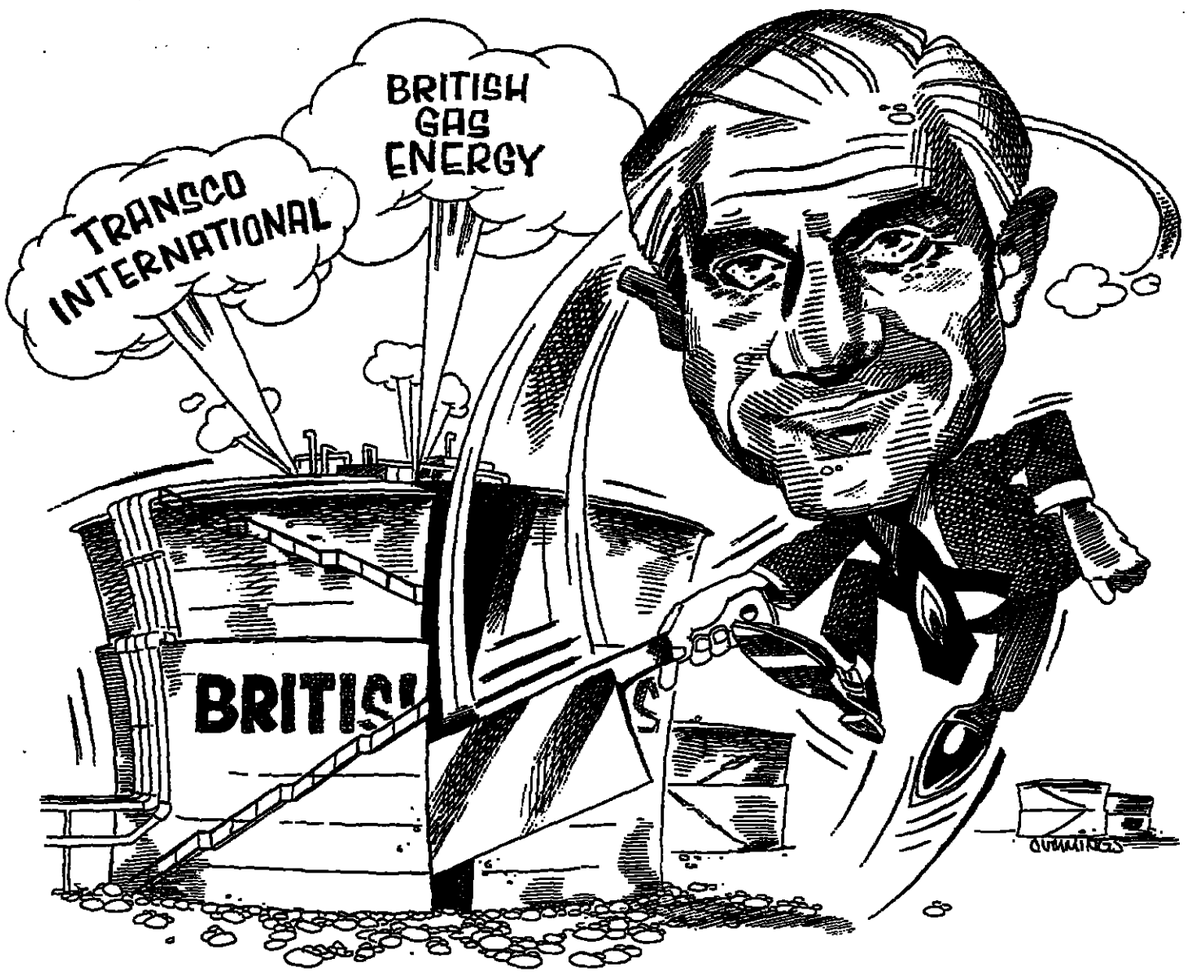
In two weeks' time, the European Commission has to decide on how much it is going to fine the Irish government for its failure to control widespread fraud in the beef market back in 1991. Commission officials have recommended penalties totalling more than £100m for a series of offences including irregularities in tendering for intervention beef contracts, and failing to ensure that the full value of intervention beef, subsidised by Brussels, was taken into storage.

Understandably, the Irish government is protesting at the scale of the fines. Mr Ivan Yates, the agriculture minister, says that they are "totally disproportionate and punitive." He complains that the Commission officials are motivated by a desire to make an example of the Irish industry, in their determination to stamp out farm fraud.

Ireland is not the first EU member state to be hit by a heavy fine for its failure to police the horribly complex regulations of the Common Agricultural Policy. Italy was fined Ecu1bn in 1993 for ignoring the milk quota regime for no less than 10 years. Britain, Italy, and France are all facing smaller fines for irregularities in the 1992 financial year. But Ireland's fine would certainly be one of the heaviest per capita penalties yet imposed by the European Commission.

The scale of the fine is supposed to relate to the financial risk to the EU from the fraud or irregularities in question. That means both how seriously it disrupted the market, and how badly the government of the member state slipped up in failing to police the rules. The suggestion put forward by the Commission's own officials is that the Irish offences belong in the most serious category, inviting a repayment of a full 10 per cent of the beef subsidy payments made during the period in question. An independent "conciliation committee" has concluded that the fine should be reduced to just 5 per cent.

If the rules of the CAP were not so appallingly complex, farm fraud would not be so prevalent. That can never be emphasised enough. But as long as the structure exists, it must be ruthlessly policed. The European Commission urgently needs to prove that it is serious in clamping down on farm fraud. So it must be tough. But it must also be fair. If the Irish fraud did not cause serious disruption to the market, then the key question is rather the extent of the Irish government's failure to police its own market. If that is shown to have been gross, then the toughest penalty should be imposed. It will be a sore lesson for the Irish taxpayer.



A problem halved

Demerger could help British Gas deal with its commercial conflicts, say **David Lascelles** and **Robert Corzine**

The demerger of British Gas will be the largest corporate restructuring ever undertaken in the UK. It will also be the longest awaited, and potentially most far-reaching, affecting virtually every household in the country and nearly 2m shareholders.

Yesterday's announcement marks the culmination of 10 years of heated debate over the company's dominance of the UK gas market. British Gas has wielded power on a scale that no private-sector company in the UK has ever enjoyed.

Yet despite two monopoly inquiries and an investigation by the Office of Fair Trading, the company is only now yielding to pressure to break itself up. Why has it taken so long – and what will be the consequences?

Much of the blame belongs to the Thatcher government which decided to privatise British Gas in one piece in 1986 to preserve a strong, unified company. Although subsequent monopoly investigations chipped away at its stranglehold on the industrial and domestic gas markets, none managed to prise it loose.

This was partly because British Gas agreed, at each critical stage, to give up just enough market share to pacify its critics. But the main reason was that the government continued to see it as a "national champion" – in the words of Michael Heseltine when he was trade and industry secretary in 1994. The company encouraged this notion by proclaiming itself a "world energy company" in its advertisements.

But the reality was moving in a different direction. As a result of the 1993 monopoly inquiry, the government decided to throw open the UK gas market to competition by 1998. This required British Gas to gear up to meet new competitors on its doorstep – and to reorganise itself to remove conflicts between its gas trading arm and its pipeline business which would transport competitors' gas as well as its own.

This process plunged the company into turmoil. Huge job losses were announced to cut costs, leading to a slump in staff morale.

And the separation of transport and trading threw into sharper relief the conflicts between the two businesses. These were not just on the competitive front. The trading business, which buys and sells gas, is an entrepreneurial activity requiring sharpness of eye and fleetness of foot: profits come from shrewd dealing. The pipeline business is highly regulated, long-term, and earns steady profits from tolls.

The changing of the guard at British Gas, which began with the appointment of Mr Cedric Brown as chief executive in 1992 and Mr Dick Giordano as chairman in 1994, brought fresh eyes to the problem. The realisation began to dawn that break-up might, after all, be the best way to resolve internal strains.

But it still took several years for the idea to come to fruition – not helped by the furore over Mr Brown's salary and the squeeze caused by slumping gas prices. The transformation also required the company to shake off grandiose visions of a multinational flag-carrier and come down to earth.

"The demerger doesn't alter the enormous scale of the challenge facing British Gas. But it does simplify the task," says Mr Giordano.

The new structure should permit two very different companies to evolve. If all goes to plan – and more costs have to be shaken out – the trading arm, British Gas Energy, will become more entrepreneurial. The pipeline business, TransCo International, more able to concentrate on its long-term goals.

One of the hopes is that this change will better equip the trading arm to resolve British Gas's biggest headache: the take-or-pay contracts with North Sea gas producers at high fixed prices which have landed it with heavy losses. According to Mr Giordano, management will have a stronger incentive to negotiate new terms since their losses will no longer be cushioned by profits from other activities. Until the contracts are renegotiated, it will be impossible to place an accurate value on British Gas Energy, but Mr Giordano did not think this should delay the demerger.

Even so, the split is untidy and not altogether logical. TransCo International has been given the UK pipeline network and also the company's international business with which it arguably has little in common. The large British Gas exploration and production business has been split between the two new companies, with British Gas Energy getting the lucrative Morecambe Bay gasfields to give some muscle to its trading activities. It had been expected that exploration and production would be separated into a third arm, but Mr Giordano said yesterday that this had been rejected as unworkable.

Looking ahead, the major question is how the demerger will affect the introduction of competition to the domestic gas market, due in 1998.

From the consumer's point of view, it should be good news. The demerger will increase confidence in the independence of the TransCo pipeline monopoly and encourage more competitors to come into the market. And if British Gas Energy becomes more competitive, this will put extra downward pressure on prices.

However, these reasons make it potentially bad news for shareholders and other competitors. By stimulating greater competition, the profit prospects for all gas suppliers will be reduced. Significantly, Mr Giordano was reluctant to make any dividend commitments on behalf of British Gas Energy yesterday – in contrast to TransCo which he said would become the principal source of pay-outs to British Gas shareholders. Sid, the archetypal popular shareholder invented for BG's privatisation, may not find BGE to his taste.

The government welcomed yesterday's developments – which is ironical given that it had encouraged British Gas to remain big. It had also rejected the 1992 recommendation from the Monopolies and Mergers Commission for an enforced break-up on the grounds that it could not be done in the five years proposed (it will now happen voluntarily in 14 months).

British Gas must be hoping that the demerger and Mr Brown's retirement will finally quieten the furore that has dogged it for years – and make it a more efficient company as well. That will be the challenge for its new entrepreneurs.

Stage set for fresh players

Like the cast of a play reaching its dénouement, all the characters in the long-running British Gas drama were present for yesterday's announcement.

Centre stage was the tall, commanding figure of Mr Dick Giordano, the chairman who arrived two years ago to sort out the troubled company. A tough American, his voice hoarse from all the talking, he needed to convey the impression that everything was under control, that the demerger was in everyone's best interests.

But it will be an uphill battle. His own judgment has been called into question because of the recent shambles at British Gas, and the furore over executive salary increases which were his idea. Mr Giordano is already heading for the wings. He said yesterday that he wants his remaining tenure to be "as brief as possible", and not beyond 1997 when the demerger is scheduled to go through.

Also heading for the wings was the red-headed figure of Mr Cedric Brown, who announced his retirement yesterday. The British Gas chief executive, a more engaging person than generally portrayed, recently said he was afraid to play the National Lottery. "Knowing my luck, I'd win £40m," he said. It had "not been a pleasant 15 months", he admitted yesterday, but he was consoled by memories of a "fascinating 40-year career with the best gas company in the world".

For the past four years Mr Brown has been battling to transform British Gas – but with only partial success. Officially, he is going because his job will be eliminated by the demerger. But he is widely viewed in the industry as the fall guy for – as well as the beneficiary of – Mr Giordano's decision to raise his basic pay by 75 per cent.

With Mr Giordano and Mr Brown gone, the stage will be clear for the new characters.

One will be Mr Philip Rogerson, the tall, schoolmasterly chairman of TransCo, the arm of British Gas with the pipeline business. Mr Rogerson arrived four years ago from Imperial Chemical Industries as finance director, the first outsider to be an executive director.

He made his mark when he was subsequently given responsibility for the company's international business, where he unravelled some bad overseas investments. Mr Rogerson does not come across as a tough-minded businessman, but he was one of only two people who joined Mr Giordano and Mr Brown on the stage yesterday.

The other was Mr Roy Gardner, a former General Electric Company executive who has made no secret of his ambition. Mr Gardner was recruited as finance director in succession to Mr Rogerson and is now in charge of the businesses that will eventually make up British Gas Energy.

One other character was just off stage yesterday: Mr Harry Moulson, the chief executive of TransCo, who will be the only career British Gas executive left on the board when Mr Brown goes. A rock music and rugby league fan, he has tried to instill a more competitive culture at the pipeline monopoly, improving relationships with some of the gas shippers which are his customers.

Although these characters completed the cast for yesterday's performance, their roles have yet to be confirmed. Mr Giordano hinted yesterday that when the official appointments are finally made, there could yet be a chance for an outsider to join the principals.

· OBSERVER ·

Tax and spend

■ No wonder Germany is having a spot of bother with its public finances. Despite repeated admonitions from the federal government, people seem to think the *Wirtschaftswunder* is still in full swing.

In the state of Hesse, the Social Democrat/Green government has shelled out DM80m to build a prison designed to house 540 inmates. Admittedly, costs spiralled after a terrorist attack in 1993, but an audit commission still described the complex in Weiterstadt as "a luxury establishment" and said it should have cost 30 per cent less.

It's not just the prisoners who are living it up. Four policemen from Bochum decided they needed a sauna and a squash court in their new premises. Failing initially to secure approval, they pretended that the room was simply for storage, with an unusually high ceiling. Bingo, the DM46,000 came through. They have now been fined between DM5,600 and DM9,000 each. Still rather less than the cost of the squash court.

Fired up

■ It is tough being a bureaucrat in Tokyo these days, as Kazuo Kodama, who has just taken over a hot seat as boss of the Japanese foreign ministry's international press division, can testify.

At his first social meeting with journalists, Kodama told the story of one bureaucrat, moving in to a new job reputed for its toughness, who found three letters on his desk. He was instructed to open one each time he encountered serious professional trouble.

Difficulties duly emerged and the new boy opened letter number one. The advice was plain. "Blame your predecessor." A few months later, the new boy had occasion to open letter number two. It was entitled "Perestroika" and continued: "Time for office restructuring".

Trouble struck a third time. Hoping for some inspiration, the now not-so-new bureaucrat opened the last missive. "Prepare three letters," it said.

Arms length

■ Have things got to the point where British cabinet ministers do not dare to be seen in the same room as Chancellor Helmut Kohl?

It is hard to find any other explanation for last weekend's strange behaviour by Malcolm Rifkind and Michael Portillo. Both went to Munich for fringe meetings with their German – and, in Portillo's case, also French and US – opposite numbers.

All were attending the annual "Wehrkunde" gathering of defence buffs in the same hotel, at which Kohl gave the keynote address.

But neither Brit put his nose inside the conference room. Britain's seat was empty until half way through the proceedings when someone alerted the chairman to the presence of armed forces minister Nicholas Soames. He at least made up in bulk for what he lacked in seniority.

Gavazzeni's coda

■ Another blow to Italian music-lovers following the burning of *La Fenice* theatre last week. Gianandrea Gavazzeni, the conductor and composer, who drew such extraordinary performances from the likes of Callas, Sutherland and Di Stefano during La Scala's golden years in the 1950s and 1960s, died on Monday at the age of 87.

La Scala is pulling out all the stops for the funeral today, with an honour last accorded Toscanini in 1957. Riccardo Muti will conduct the funeral march from Beethoven's Eroica symphony to an entirely empty house while Gavazzeni lies in state in the foyer, the doors open wide onto the square. Almost worth dying for.

Star billing

■ Full marks to the manufacturer of the DocStar electronic filing system for making capital of the Clintons' Whitewater troubles.

An ad in the US press yesterday picks up on the pressing question the federal grand jury put to Hillary Clinton last month concerning missing papers which made a sudden reappearance on a table in the Clintons' living quarters.

It is in the form of a letter from John Botti, the CEO of BitWise Designs, maker of DocStar, addressed "to whom it may concern" at the White House. "It has come to our attention," the letter kicks off, "that some time ago a few important documents were misplaced".

Had the White House installed the DocStar system, they could have retrieved the document electronically "merely by remembering any word on a page (eg Whitewater) and then pushing a button". Somehow, Observer does not expect the Clintons to become customers.

Ding dong

■ While Hongkong Bank yesterday inaugurated Vietnam's first hole-in-the-wall cash dispenser in Ho Chi Minh City, some of the country's financial institutions appear to be less enamoured of the virtues of automation.

A bank in Ha Tay province in the north recently received a cash transfer of 30bn dong ($2.7m) in 20,000 dong notes. In the absence of a machine, two employees were drafted in to do it by hand. They spent 15 days counting 1.5m notes.

The Financial Times

100 years ago

Life Insurance

Brazil has gone one better than Prussia in legislation apparently designed to drive out all foreign life insurance companies. According to the law passed in September last, every foreign company doing business in Brazil has to advertise in the public press every policy issued in the country, giving name, amount of premium and reserve. Further, the entire balance of the Brazilian premiums, after paying death claims and expenses, have to be invested in Brazil.

50 years ago

Antidotes to inflation

New York: The charge that certain public officials in Washington are deliberately fostering the "erroneous belief that the Stock Market is primarily the source of inflation" is made by Mr Emil Schram, president of the New York Stock Exchange.

Mr Schram declared: "The advance in stock prices and activity in the market are no more than symptoms of the disease of inflation. If we are to check inflation we must attack the basic causes, which are far removed from the surface reflections of the Stock Market."

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Party chief's plea may spark political shake-up

Vietnam urged to allow switch to younger talent

By Jeremy Grant in Ho Chi Minh City

Vietnam's Communist party must recruit younger people to top positions, according to Mr Do Muoi, the party leader, who appeared to be signalling a generation change in the country's leadership.

Mr Muoi, who also indicated that future leaders must have a better understanding of economics and technology, is understood to have decided to step down at a landmark party congress around June when the country's economic reform programme will be reviewed.

His retirement would probably have a knock-on effect in the party leadership, and posts including that of president, held by Mr Le Duc Anh, 79, and prime minister Vo Van Kiet, 73, could be contested. The congress, the first for five years, is expected to debate the future course of economic reforms.

Mr Muoi's comments, quoted in the Saigon Times Daily, are the clearest indication that a new generation is likely to come to the fore in Vietnam's politburo, dominated by elderly veterans – average age 71 – who played leading roles during the Vietnam war against the US.

"A younger generation in the Communist party is a must as an ageing party leadership could have a retrograde effect on the country," Mr Muoi, 78, was quoted as saying.

Diplomats say it is too early to guess who might emerge as successors to those in top positions, but some say Mr Phan Van Khai, 62, deputy prime minister, could succeed fellow reformist Mr Kiet if he relinquishes the premiership.

Mr Muoi, who has a reputation for ideological conservatism, became party general secretary at the party's previous congress in 1991.

He had been prime minister since 1988, two years after Vietnam officially abandoned command-style economics in favour of market-oriented reforms known as *doi moi*.

The general secretary, who has been a Communist party official since he was 28, said the role and position of the younger generation would be decisive for Vietnam's future, but the young must learn more about information technology, foreign languages and "ideology".

"The need for a younger party leadership will be a central issue at the coming party congress," Mr Muoi said. "I've learned about young people in their 30s who have fulfilled successful tasks; they have convinced me the younger generation should be responsible for building and defending the country."

About 60 per cent of Vietnam's population is aged under 25. Membership of the party stands at 2.2m in a country with a population of 73m, party figures show.

Jaguar lays off up to 2,200 workers after US orders fall

Fears of further industry job cuts as manufacturers tackle overcapacity

By Haig Simonian in London

Jaguar, the luxury UK carmaker owned by Ford, yesterday said it would lay off most of its 2,200 production workers for a week to reduce stocks of unsold cars.

The company blamed the stoppage mainly on lower sales in the US, its biggest market. It said it had no plans for further short-term lay offs or redundancies.

Jaguar's move surprised analysts as it followed optimistic sales figures last year. Registrations soared by 32 per cent to 39,727 vehicles in 1995 – the highest figure since Ford took control in late 1989. More than 45 per cent of sales came from the US, where registrations climbed 19 per cent to 18,065 vehicles.

Mr Colin Cook, Jaguar's corporate affairs manager, said the lay-offs would cut stocks by about 900 vehicles and help to balance supply with demand. He said the company's expansion plans remained unchanged.

Preliminary figures from the UK's Society of Motor Manufacturers and Traders show that sales of new cars rose by 0.3 per cent to 191,761 in the UK last month, compared with the same period last year. Jaguar's sales dropped by 8 per cent to 1,065 cars, according to the data.

The society expects new car registrations to increase by 1.3 per cent to 1.97m this year. However, that remains well below the 2.3m sales of new cars recorded in 1988-89.

"We are still a long way from the levels we need to be at for a healthy market," said Mr Ernie Thompson, the society's chief executive.

He said last month's small rise over January 1995, which was itself down 3.7 per cent on 1994, was "hardly the most encouraging start to the new year".

The disappointing UK sales figures are in line with downbeat forecasts for European new car sales this year and follow announcements about short-term working by a number of big European carmakers.

New car sales in the 17 countries monitored by the European Automobile Manufacturers' Association rose by just 0.6 per cent to 12m vehicles last year, against peak sales of 13.5m in the early 1990s.

Although the association has predicted this year's sales should rise by 3 per cent, a number of manufacturers are considerably less optimistic. This week, Mr Helmut Werner, chairman of Mercedes-Benz, said he expected registrations to increase by just 1 per cent in 1996.

Other companies were reluctant to discuss stock levels or production.

However, Ford and Rover are believed to have told some suppliers to expect cuts. "There will be horror stories in the industry," said one supplier.

The prospect of lay-offs reflects the poor state of the UK car market, which has been plagued by overcapacity and weak demand.

Although new car sales rose by 1.8 per cent to 1.95m last year, manufacturers were disappointed. Demand from private motorists remained weak, while sales to fleet buyers, while rising, often involved large discounts.

See Lex
Hopes for tax cuts, Page 8

US to block BA without Heathrow deal

Continued from Page 1

sharing agreement with another US carrier, such as American. The prospect of an alliance between BA and American arose last year when the US carrier was considering taking over USAir. Both American and United Airlines of the US decided not to mount bids for USAir.

Many in the industry still, however, see an alliance between BA and American, which does not have a European partner, as a strong possibility.

A code-sharing agreement would create one of the world's strongest airlines. It would allow BA to sell seats on American's huge network of US domestic routes and give the US carrier access to BA's flights from Heathrow to other countries.

Osaka set to offer visitors the Hollywood experience

By Christopher Parkes in Los Angeles and Michiyo Nakamoto in Tokyo

A $1.6bn theme park, starring Tyrannosaurus Rex, ET and other cinema favourites is to be built in Osaka, western Japan, through a joint venture which combines the talents and financial power of Canada's MCA entertainment group, Britain's Rank Organisation and Japanese investors.

The scheme marks the first overseas venture by Universal Studios Recreation Group, which, in parallel with other parts of the MCA concern, is being directed into aggressive expansion by its new owner, the Seagram drinks empire.

The new park also highlights the group business culture in the Osaka region, as the local investors will include Osaka Gas and the Sumitomo group, which has its headquarters in the city. Their involvement contrasts with the lack of enthusiasm shown by another Osaka company, Matsushita, the former owner of MCA, which failed to back the theme park venture two years ago.

Modelled on MCA's successful Universal Studios in Hollywood and Florida, the park is intended to be the main attraction which will draw other business into a projected "international media district" on Osaka's western waterfront.

Other companies expected to cluster round the park – in an area to be known as Universal City, Osaka – include software, telecommunications, information and research enterprises, MCA said. MCA and Rank will each take a 17 per cent share in the 140-acre park, with the balance distributed among the Japanese corporate backers.

The project is expected to graduate to the status of a Universal City, similar to that in Hollywood, combining the attractions of a "park-style" entertainment complex with hotels, multi-screen cinemas, cafes, shops and "street entertainers" in what Universal calls "E-Zone entertainment retail districts".

Work is expected to start in 1998, and the rides and other attractions should open in early 2001, MCA said yesterday. The theme park will be the second largest in the country, after the hugely successful Tokyo Disneyland which has attracted more than 160m visitors since its opening in 1983.

Mr Ron Bension, chairman of Universal Studios Recreation Group, said he was confident the new theme park could attract 8m visitors in the first year, an attendance similar to that of Universal Studios' US park.

As in Hollywood, where the park is built in and around working film and television studios, the Osaka project will incorporate operational studio facilities.

THE LEX COLUMN

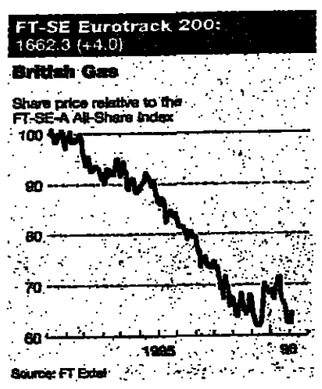
The Gas man goeth

Yesterday British Gas chopped itself in half and parted company with its chief executive – yet the stock market's reaction was: so what? The company is still lumbered with its uneconomic gas contracts and still faces a nasty regulatory review, the argument runs. This is all true, but not the whole story. Two things have changed. The demerger puts a clear cap on the total bill stemming from the company's £40bn long-term gas contracts. And it means the cash cow – the TransCo pipeline business – will no longer have to foot this bill.

Together, these should add value. For a start, the net present value of British Gas's contract losses can only be estimated in broad terms. It could well exceed £2.6bn, the net assets of the trading business which will house them. Yet the market is still likely to attach some value to this business – and rightly so. If the liabilities turn out low, all is well and good. If they turn out high and the business ends up close to going bust, North Sea gas producers will have no choice but to renegotiate their contracts.

Of course, the demerger is not all good news. Separating the contracts nightmare from the rest of the company probably means the regulator will feel freer to get tough in her forthcoming price review. On the other hand, even after the review, the business – to be called TransCo International – still stands a respectable chance of sustaining British Gas's dividend. After tax, interest and investment – but before the review – it should generate £800m-£1bn a year in cash, well ahead of the £630m cost of the dividend. And to investors who believe the dividend can be sustained, British Gas's current share price will look low. Applying the yield of the obvious comparator, the National Grid, produces a share price of 270p; that is 11 per cent above the current price, even ignoring any value from the trading business.

Moreover, using a yield valuation, as the market is likely to, underplays the value of the exploration and production arm. This is to remain with a pipeline business with which it has little synergy. More is the pity: British Gas could usefully have taken the opportunity to demerge this too.



Mittelstand

Germany's Mittelstand is becoming more adventurous. The country's second-tier companies have long been derided for their reluctance to look much beyond Germany's borders. That is changing. The latest example is Fresenius's bid to take control of National Medical Care, a US kidney dialysis business three times its size, in a deal worth $3.8bn. Last month, consumer products group Benckiser narrowly lost to France's L'Oreal in a $600m bid battle for cosmetics maker Maybelline. Gehe, the German drug distributor, is currently stalking the UK's Lloyds Chemist after acquiring larger rival AAH last year.

The strength of the D-Mark and the high costs of doing business in Germany are part of the reason for this rush abroad. But Mittelstand companies are also starting to recognise that they operate in global or at least European markets; and that to get real access to faster-growing emerging markets they need to have a presence on the ground. Where marketing companies such as Adidas have led the way, others are following. Fresenius has set up joint ventures in China and India in the past few years. Benckiser, although still private, has spent more than DM4bn ($2.7bn) on acquisitions over the past decade and now makes 80 per cent of its sales outside Germany. As a new generation of managers, often Anglo-Saxon educated, takes the helm at many Mittelstand companies, the trend to internationalise will accelerate.

BSkyB

The stock market is finally waking up to the regulatory threats to BSkyB's lucrative pay-TV monopoly. But the specific event that triggered yesterday's 5 per cent fall in its share price is curious. It is Premier League football, not the satellite group, that has been branded a cartel by the Office of Fair Trading. Arguably, the Premier League's practice of selling broadcasting rights to its matches as a single entity squeezes a higher overall price from BSkyB. If clubs were prevented from forming a single front in talks, BSkyB might be able to pay less by picking them off one at a time.

The OFT may find it hard to persuade the Restrictive Practices Court to ban the arrangement. The Premier League's case that forcing clubs to negotiate individually would lead to fragmentation will be hard to answer. Viewers would be unlikely to welcome it if, say, Liverpool cut a deal with the BBC, Manchester United plumbed for ITV and Tottenham Hotspur signed up with BSkyB.

That said, the broader regulatory threat remains. Not only is it looking increasingly likely that the government will bow to pressure to curb BSkyB from showing certain sports exclusively; even more threatening is the OFT's main investigation into the satellite group's monopoly. It is hard to fault BSkyB's commercial success – yesterday it reported a 70 per cent rise in earnings per share. But, with the shares standing on a multiple of about 30 times this year's earnings, the risks are still not fully priced in.

Ford

Ford's decision to launch a cheap and cheerful version of its Taurus saloon places a question mark over its whole pricing strategy. The car maker is in the midst of an ambitious overhaul of a third of its model range, including the Taurus, a new pick-up truck and the Escort in Europe. Unlike arch-rival General Motors, which has merely tweaked the styling on some cars, Ford has produced all-new versions, with better technology, more luxurious features – and significantly higher prices. But American consumers are in a bargain-hunting mood and the gamble has not, so far, paid off in extra sales. That is bad news, since of the three big car manufacturers, Ford has the highest development costs – the new Taurus alone cost $3bn. It is also some way behind Chrysler and General Motors in streamlining its purchasing. The combination is depressing profits at a time when car markets on both sides of the Atlantic are difficult and getting more so.

Additional Lex comment on UK taxation, Page 19

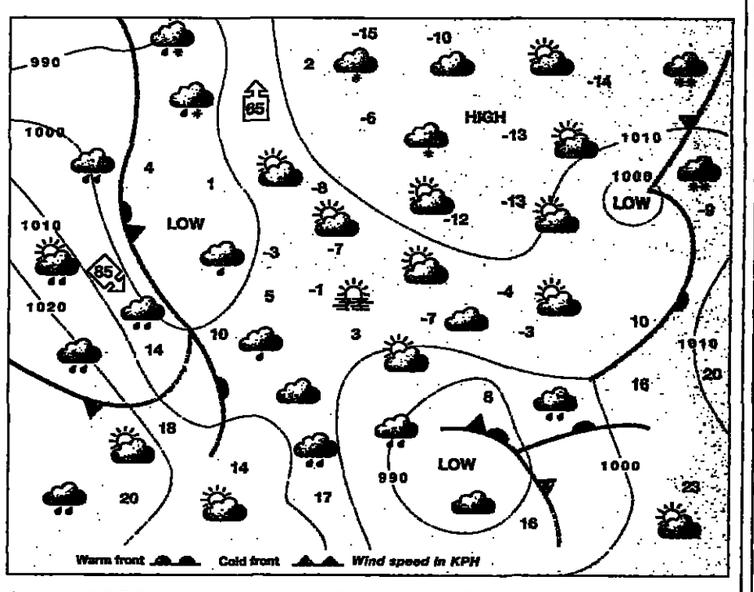
FT WEATHER GUIDE

Europe today

High pressure over southern Scandinavia and the Baltic states will keep most of the continent dry and cold. Temperatures will remain below freezing in Scandinavia, Germany, the Benelux, north-eastern France, the Alps, Poland and the Balkan states. Depressions over the Atlantic will draw milder air towards western Europe. A series of frontal systems will bring cloud and precipitation to the British Isles and western France. Ireland will have outbreaks of rain. Colder air over Scotland and the UK will produce snow. The north coast of Spain and Portugal will be rainy. The Mediterranean will be unsettled with numerous showers in southern Italy, Greece and western Turkey.

Five-day forecast

High pressure over Scandinavia and Russia will keep much of western Europe dry and wintry with temperatures below freezing over a wide area. A series of depressions from the Atlantic will bring in milder air accompanied by rain and snow over south-west France and the UK. The depressions will move into the Mediterranean where conditions will be changeable.



Situation at 12 GMT. Temperatures maximum for day. Forecasts by Meteo Consult of the Netherlands

TODAY'S TEMPERATURES

	Maximum Celsius																
			Beijing	sun	1	Caracas	cloudy	29	Faro	fair	19	Madrid	shower	13	Rangoon	sun	33
			Belfast	fair	3	Cardiff	shower	2	Frankfurt	sun	-5	Majorca	fair	14	Reykjavik	fair	-1
Abu Dhabi	sun	25	Belgrade	cloudy	-3	Casablanca	rain	18	Geneva	cloudy	2	Malta	shower	13	Rio	rain	29
Accra	cloudy	33	Berlin	sun	-9	Chicago	cloudy	6	Gibraltar	fair	18	Manchester	cloudy	2	Rome	sun	9
Algiers	shower	14	Bermuda	shower	18	Cologne	sun	-5	Glasgow	cloudy	1	Manila	cloudy	29	S. Frsco	fair	19
Amsterdam	sun	-6	Bogota	cloudy	20	Dakar	fair	23	Hamburg	sun	-7	Melbourne	fair	29	Seoul	cloudy	3
Athens	rain	13	Bombay	sun	35	Dallas	fair	18	Helsinki	fair	-10	Mexico City	sun	20	Singapore	shower	28
Atlanta	fair	13	Brussels	sun	-5	Delhi	sun	24	Hong Kong	rain	21	Miami	fair	23	Stockholm	fair	-10
B. Aires	sun	29	Budapest	cloudy	-7	Dubai	sun	26	Honolulu	fair	28	Milan	fair	3	Strasbourg	cloudy	-3
B.ham	cloudy	0	C.hagen	fair	-4	Dublin	rain	5	Istanbul	rain	6	Montreal	snow	-8	Sydney	fair	29
Bangkok	fair	32	Cairo	sun	25	Dubrovnik	fair	9	Jakarta	shower	30	Moscow	fair	-13	Tangier	shower	17
Barcelona	cloudy	12	Cape Town	sun	27	Edinburgh	snow	3	Jersey	sleet	3	Munich	sun	-8	Tel Aviv	sun	23
									Karachi	sun	29	Nairobi	fair	30	Tokyo	fair	9
									Kuwait	sun	20	Naples	fair	9	Toronto	snow	-1
									L. Angeles	sun	27	Nassau	fair	22	Vancouver	rain	9
									Las Palmas	fair	21	New York	cloudy	3	Venice	fair	3
									Lima	fair	27	Nice	fair	10	Vienna	sun	-10
									Lisbon	shower	16	Nicosia	shower	16	Warsaw	fair	-13
									London	sleet	3	Oslo	fair	-5	Washington	cloudy	6
									Lux.bourg	sun	-5	Paris	cloudy	2	Wellington	shower	21
									Lyon	rain	3	Perth	fair	34	Winnipeg	fair	0
									Madeira	fair	19	Prague	fair	-11	Zurich	fair	-5

FINANCIAL TIMES REVIEW

Interview
View from the top: Les Alberthal of EDS, active in 40 nations
Page 2

Recruitment
IT skills market in turmoil
Page 2

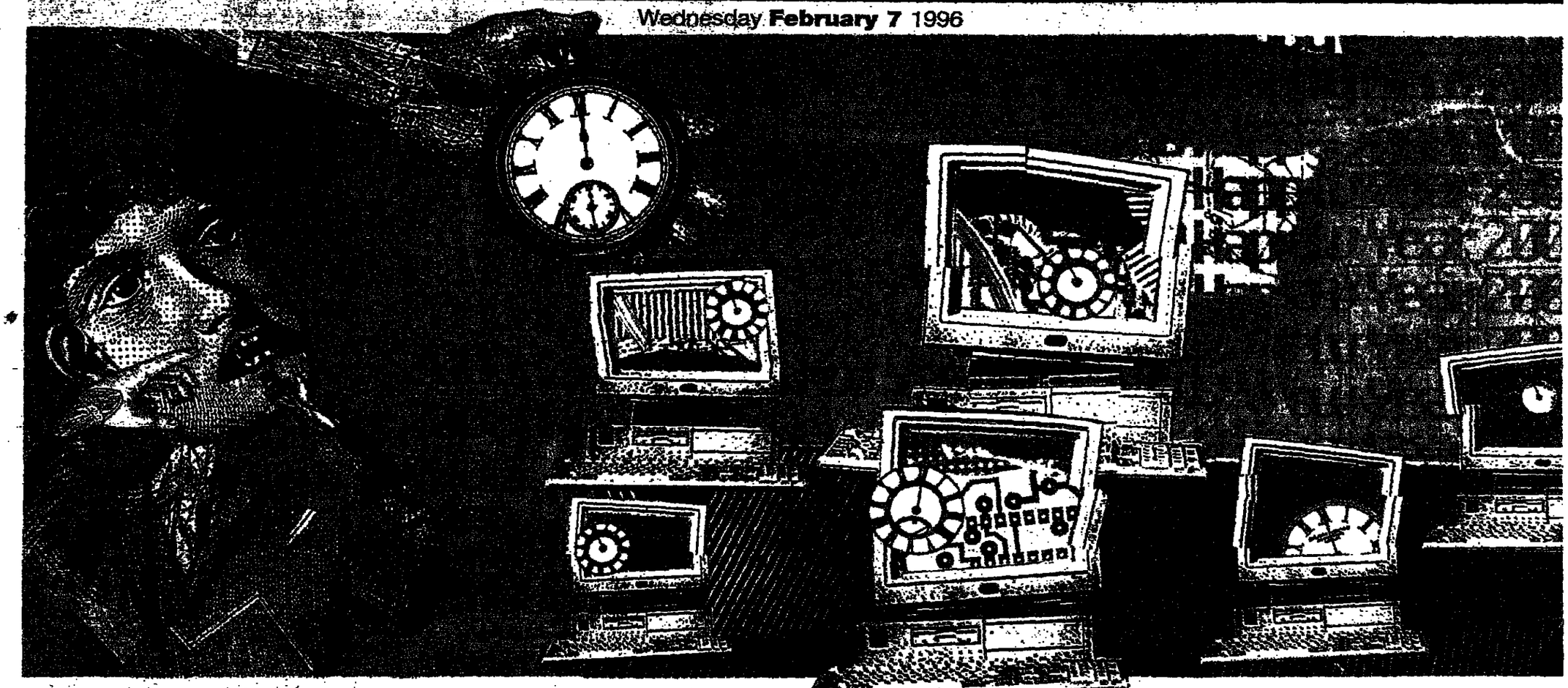
Focus
IT in Government: The battle to cut costs
Pages 4-12

Software at work
Enterprise intelligence systems: Rewarding insights
Pages 14-15

Directions
Network-centric computing: Transforming business
Pages 16-18

Information Technology

Wednesday February 7 1996



Software timebomb ticks away

With the year 2000 just 47 months away, many businesses face serious and costly disruptions because of the way older computers calculate dates, writes **Paul Taylor**

Of all the challenges which the start of the next millennium will present for business and other organisations, few are as serious as the software time-bomb ticking away within many computer systems. It is a worldwide problem, which on some estimates could cost up to $600bn to solve.

"The year 2000 poses one of the most significant challenges ever faced by the IT industry and it will have an enormous impact on business applications, package solutions and systems software, even putting some companies out of business," warns Kevin Schick of Gartner, the IT research and consultancy group.

Yet, many companies are still unaware of the so-called Year 2000 problem, or they have chosen to ignore it, or believe that with 47 months still remaining of the twentieth century, there is still plenty of time to put things right.

So what is all the fuss about? Most older computer programmes, particularly those that run on 'legacy' mainframe machines, store dates in the dd/mm/yy or mm/dd/yy format – using two rather than four digits to designate the year. As a result, they cannot distinguish between the year 1910 and 2010 – both of which would be identified by the double digit 50.

At the same time, all date calculations are also affected. For example, a loan which starts in 1996 and ends in 2000 will be calculated as a minus 96-year loan instead of a four-year loan.

"Many businesses will be affected by the Year 2000 problem long before December 1999," says Micro Focus, the mainframe software specialist. It has established a special Year 2000 team led by US-based Dwight Cornwall.

Among the software applications which are likely to be affected will be those dealing with forecasting, loans, insurance policies, transport schedules, retirement benefits, as well as others which will either stop functioning or produce incorrect calculations without attention.

Some software is also unable to cope with the fact that although the millennium is divisible by 100, it can also be divided by 400 and is, therefore, a leap year.

Other issues include the use of the numbers 00 and 99 by programmers to indicate a null entry or the final record in a database. In the case of older personal computers, many will reset their internal clocks to January 1980 at midnight on December 31, 1999.

If there were only a few isolated instances of problem dates or date calculations, the solution might be relatively simple. However, with millions of lines of computer code and complex interdependencies involved, it is an all-pervasive problem capable of causing disruption throughout an organisation and even beyond.

The problem has arisen because of the limitations of early computer technology and the high cost of storing information when the first commercial computers came into use in the 1960s. At the time, not storing the extra two digits denominating the century was an enormous space-saver – and thus a big cost-saver.

Although the Year 2000 problem has been acknowledged since the 1980s – and some programmes written since then store dates in the full format – many of those in charge of corporate information technology systems have chosen to brush it under the carpet.

By the end of 1997, Gartner expects less than 20 per cent to have achieved full Year 2000 compliance, a figure which still only rises to less than 50 per cent by the end of 1999.

There are several reasons for this reluctance to come to grips with the issue:

☐ Firstly, it could be seen, to some extent at least, as a problem which IT professionals had brought upon themselves.

☐ Secondly, at a time when many companies were focusing on short-term business horizons, the end of the century seemed a long way away. Some IT directors may have thought, too, that they would have retired, or moved companies by then.

☐ Thirdly, correcting the problem will be very expensive and bring little if any other benefits. Asking the board for funds may as a result have appeared an unattractive proposition.

"People seem to think the millennium issue will magically disappear, but in reality it is a basic computer problem requiring a lot of surgery that must be understood, planned and addressed," says Ian Taylor, chairman of CMG, the computer services group. "A virus is simple compared to the millennium issue."

Delay in dealing with the problem will probably add to the eventual cost of recoding programmes, and in many cases is not an option anyway.

Gartner, which has issued a series of research notes on the subject over the past 18 months, suggests that about 20 per cent of business applications would have failed last year without corrective measures, and that by 1999 this figure will have risen to more than 90 per cent.

The high cost of solving the Year 2000 problem

For a medium-sized company with about 8,000 programmes which support business operations, Gartner estimates the cost of the Year 2000 crisis will be about $450 to $600 per programme or $3.6m to $4.2m: for larger organisations Dun & Bradstreet Software has estimated the cost could be as high as $100m. Much of the costs relate to programmers' time.

It would take 24 people one year to implement a solution in the example above. Alternatively, 12 people using 'software tools' developed specifically for this purpose, could be occupied for one year, in addition to any time needed to gain experience with the tools.

"That assumes the company can afford to allocate staff away from other priorities," notes Gartner.

In practice, many companies are turning to outside specialists to help them with the Year 2000 crisis. Hardware vendors such as IBM and Unisys, software companies such as Micro Focus, consulting firms, such as Andersen Consulting, and computer services companies, including CMG, Viasoft and Cap Gemini have all built up expertise in this area.

Viasoft, a US-based software tools company, has developed a three-phase approach to the problem – assess, plan, execute – and these activities are grouped together into what the company terms a comprehensive solution, Enterprise 2000. Customers can sign up for the whole process, or just for those elements they wish to utilise.

Viasoft worked with a client in the insurance and banking industry which had already been experiencing problems with the millennium issue. When Viasoft conducted its software audit, it discovered that from a portfolio of 10,000 mainframe programmes, 79 per cent of data items included references to date, and within this group three per cent required changing.

"Although three per cent may appear insignificant, in man-years the effort is most certainly not," says Stuart Watkinson, general manager of Viasoft in the UK. "It took 44 man years to correct the problem and ensure the code was millennium compliant."

Because the available external resources are limited, if the problem isn't addressed at an early stage, there may not be anyone available with the appropriate knowledge later on.

Indeed, most of the programmes affected by the Year 2000 problems are written in an ageing mainframe language called Cobol and although there are still a large number of Cobol programmers around, in the US the number is decreasing by about 1 per cent a year as programmers move towards more fashionable and modern languages.

"As we approach the year 2000, the number of available Cobol programmers will decline quickly," warns Viasoft. "The time to start is now," says Watkinson.

To reduce costs and help automate the process most specialists employ diagnostic and conversion tools – "there are more and more tools and toolkits available," says Elaine Eustace, CMG's Year 2000 specialist. Among the main suppliers are Viasoft, Micro Focus and Adpac.

"To minimise their exposure to the Year 2000 crisis, IT departments must begin immediately to analyse their applications portfolios, assess the extent of the problem and begin budgeting, planning for and implementing the potentially extensive corrective measures that will be required," says Gartner.

There are, Gartner's Schick points out, just three certainties in this work: "death, taxes – and the year 2000."

■ Interview with Les Alberthal

By Paul Taylor

Needed: more thinkers 'on the outer edge'

Successful companies in the future will be those that make the right changes at the right time, ensuring they stay on the outer edge of their markets, says Les Alberthal, chairman, president and chief executive of EDS, the worldwide IT services group with annual revenues of $12bn

EDS is the undisputed leader in the outsourcing and large systems development and integration market with annual revenues of around $12bn, a consistent growth record and a strong technology and skills' base.

The group's operations in 40 countries span the IT services sector and include a growing consulting business, boosted by the acquisition in September of A T Kearney; systems integration, involving the design, installation and implementation of computer systems; and IT outsourcing, where EDS runs clients' IT systems – for example, Britain's Inland Revenue – often after purchasing the customer's assets and taking on its computer staff.

Now the information technology professional services group, whose headquarters are in a space-age complex rising from the pasture-land near Plano, Texas, is preparing to be spun off from General Motors, the auto giant which acquired EDS in 1984 from its larger-than-life founder, Mr Ross Perot.

In the process, EDS has begun to re-assess its past, and define its future.

"Our perspective on the whole role of technology is that the world has seen five decades of the invention, creation and selling of technology which is basically personified by boxes," says Les Alberthal, chairman, president and chief executive.

Les Alberthal: 'No one technology offers a universal panacea'

"Tremendous amounts of money have been spent on technology, but all we have really managed to do is to utilise technology to automate processes which were conceived 50 or 100 years ago.

"While most companies and even governments have the ability to make the technology work on a routine basis, we have never really taken the time to rethink how this technology tool can really be leveraged."

Indeed, the EDS chairman argues there is an ever-widening gap between the growth of technology and the use of technology – "it is that gap that is really our marketplace," he says.

Alberthal believes that the emergence of a new generation of computer-literate young adults will have a profound effect on western economies as they enter the workforce and become consumers – "this will start to change significantly how goods and services are procured and used throughout the developed world".

For example, he thinks most mail order catalogues will go on-line: "You are going to be able to buy the sweaters in the colours and everything else you want, straight off the terminal, 24 hours a day. Industry by industry, product by product, the transition will start: it won't be overnight, but as this workforce moves into the consumer band you are going to start to see dramatic changes.

"Our job with our customers is to help them figure out how to make the right changes at the right time, to make sure they stay on the outer edge of the market that they are in.

"One of the main reasons for us getting into consulting is to have more people thinking on the outer edge of where changes are coming in industries, to look ahead so we can take our implementation skills and tie them on to a better envisioning process for the future."

EDS believes that the combination of a computer literate workforce together with the privatisation of telecommunications will make it easier for business to communicate directly with consumers.

For example, says Alberthal, carmakers have the technical ability to communicate directly with the consumer 24-hours a day, seven-days-a-week, "but we have this retail distribution business that has taken 100 years to develop and nobody knows quite what to do with it".

Eventually, an outsider will come in and make the technological leap leaving competitors trying to catch up, he predicts. That outsider could well come from the developing nations of Asia, he suggests.

"The change is coming and we will have to be able to address that change," says Alberthal. "In our case, our whole business is working with our customers, both government and private sector, helping them more effectively leverage technology.

"Technology is a leverageable tool – it can have an impact on overall cost, time-to-market quality. It is a differentiating factor."

But Alberthal is also keen to emphasise that no one technology offers a universal panacea: "There will be situations where using a big mainframe works, but there will be situations where it doesn't."

EDS' own research and development activity is mostly focused on tools designed to make its systems engineers more productive. Generally, the group buys in software narrowly related to a particular industry – "most of our systems engineering activity will be in the area of trying to pull all the pieces together," he says.

Since EDS is one of the top five customers of all the main hardware suppliers, it is typically 'a beta test' for all of them. "That gives us a chance to see what is coming and influence some of the processes because they also want to use us a marketing avenue to get their product out," he says. However, he also believes that there is a 'fashion' element in the technology box business. Everyone has to have the newest, the latest – "that's the only way the manufacturers can sell new equipment," he says.

"Client/server 'hit' two years ago, client/server was the new wave and mainframes were going out of the door – *everything* was going to be client/server.

"Client/server was nothing but another technology, another box..."

The challenge for business and government is how to put together the right blend of technology to do the best job in any given situation – "you don't necessarily want to be on the outer edge of the wave of change because then you become the testbed. And business is usually half a step to a step back because you need *reliability*, you need lower cost. You need it to be a commodity type of activity".

Companies need to stay as close to that outer curve as possible without getting into the testbed area, but at the same time they need to ensure that they do not spend so much money that they cannot be competitive with their rivals – "the biggest problem I see over the next 10 years is going to be companies that fall behind too quickly because, right now, a lot of companies are really focused on line-item costs of technology".

For them, the danger is that they miss a significant technology move – "our whole pitch to our customers is that you have to continue to look at technology in the broadest light, how can it have the maximum impact on your business. Let *that* be the driver of the decision process".

The main competition for EDS comes from companies such as IBM, AT&T, Andersen Consulting and CSC, but Alberthal notes that EDS has the benefit of 30 years' experience in this business – "I'm delighted we're in the position we are," says Alberthal, who has himself been with EDS for 27 years. "I've seen it grow from something that conceptually nobody understood, to where the market is going in our direction. It's an exciting time".

Significantly, senior EDS executives including Alberthal also seem ready now to admit that EDS needs to change its old image of being stuffy, aggressive and very conservative – even blue shirts and beards were once banned. Alberthal explains: "When we were very small and didn't have access to very much capital, we were individually and collectively, very 'hard charging'... we were very focused.

Global nerve centre: staff at the EDS headquarters in Plano, Texas, monitor activities in 20 other large-scale information processing centres around the world – all linked via EDSNET, the company's private digital telecommunications network

"The initial business we had in the 1960s and the early 1970s was with organisations who couldn't make their computers work...we were entrepreneurial, crusty and arrogant and all those things that went with it." During the early 1980s, he says, Ross Perot cultivated the image, "because it was the militaristic, hard-charging kind of image he was trying to foster for himself".

Meanwhile, he claims "the big, old, black image" of EDS was fostered and fed on by the hardware companies – "the hardware guys used to command the executive level, IBM had all the relationships at the executive level; Honeywell had them, Burroughs had them and gradually what has happened is that as hardware has become more of a commodity, the importance of the software and the technology side has taken its place we have moved into the executive decision process".

Starting in 1986, Alberthal says the group knew that it needed to start tempering its image, "so we started making a conscious effort to 'soften', to let the world and our customers know that EDS people are very professional, very capable – but just like other people."

So what image does EDS want to project for its future?

"We are obviously grappling with that right now," says Alberthal, "because when we get this spin [off] done, it will be the first time in the history of the company that we are not overshadowed either by the personality of Ross and what image *he* was trying to create for himself, or General Motors.

"EDS, the company, will be independent, with our own board of directors. We are dealing with that [the image question] right now: we don't have all the answers, but the things that *are* important to us are stressing our professionalism, our integrity and our commitment to getting the job done. We will take the things out of our history that are good and try and build on that," says Alberthal.

■ Recruitment

By John Kavanagh

IT skills market in turmoil

Businesses are feeling the impact as the shortage of IT skills hinders moves to more efficient ways of working, especially in customer-focused processes

A host of unconnected factors have combined to throw the IT skills market into the greatest turmoil since computers started being used in business 40 years ago.

Skills shortages are adding 21 per cent on average to computing costs in the UK and are increasing staff turnover and leading more permanent employees than ever before to quit to become contractors.

Skills shortages are not new in IT, where people have tended to see themselves as working in IT rather than for a particular employer and have been ready to move to get the next technology challenge and career step-up.

But this time the situation is worse – and employers and recruitment specialists see no hope of improvement.

"Although the skills crisis of the mid-1990s is following a similar cycle to that of the 1980s, there is now a new generation of skills in demand and very different employment structures and career paths," says Philip Virgo, researcher for the annual *IT Skills Trends Report*, published by the Institute of Data Processing Management.

Early skills crises arose because of the pure growth of computing. The 1980s brought demand for PC and networking specialists. But all the time the central mainframe computer was the corporate IT mainstay.

This time round, however, there has been a shift away from the mainframe into totally new IT set-ups – followed by a realisation that the mainframe is still important after all.

The first shift started at the end of the 1980s when computer suppliers came up with the client-server idea. This moved systems off the mainframe and on to smaller computers in business departments, typically running under the Unix operating system: the selling points were that users got control of IT and overall costs were cut.

The costs issue has since been a subject of great debate – companies, meanwhile, have seen that the central mainframe still has a role as the central store of corporate data and the processor of corporate systems. These two shifts in IT thinking came, however, at exactly the wrong time: the start of a recession.

Client-server systems demanded new sets of skills in companies which had previously kept up traditional mainframe system development by maintaining a steady flow of Cobol programmers. Suddenly, they needed skills in Unix and the associated C and C++ programming languages.

Client-server projects were well under way when the recession struck, but already there were shortages of the new skills – and training is one of the first activities to be put on ice when times get hard.

Projects, too, went 'on hold', but as the recession ended companies dusted them down, only to find that every other company was doing the same and looking for staff.

Then came the reversal of attitude towards the mainframe – and companies found they now also lacked the traditional skills. In the recession they had retrained some Cobol programmers in the new skills and made others redundant, seeing the future beyond the recession as client-server. But they now find they need the traditional skills almost as much as expertise in the newer programming languages.

These trends are highlighted by a survey of IT job advertisements in the trade and quality national press by research firm SSP for *Computer Weekly* magazine.

This shows that Unix and C skills are most in demand – but growth in the need for these skills is outstripped by that for C++ and for Cobol, the oldest language in the top 20 yet still in fourth place.

In addition, skills in the mainframe DB2 database manager, CICS transaction processor and SQL query language are also in the top dozen and enjoying well over 60 per cent growth.

Colin Osborn: 'The market tightened increasingly in 1995'

Tony Coombes: 'IT people are looking for new challenges'

A new survey of 270 UK IT managers by recruitment group Delphi shows that 80 per cent have skills shortages and 62 per cent expect the problem to get worse in the next two years.

Colin Osborn, associate director for personnel at IT services company CMG, has noticed changes almost from month to month: "The market got tighter and tighter as 1995 went on and the pool of people had certainly diminished by the end of the year."

Mr Osborn points to other factors which are exacerbating the skills crisis this time round. He mentions legislation changes, notably in banking, already a heavy user of IT staff. The UK deregulation and privatising of utility markets, notably gas and electricity, is creating new companies, all needing systems developed.

The turn of the century will create still more problems. Massive reprogramming will be needed to ensure that systems can calculate differences between dates across the two centuries, says Mr Osborn. US studies have put the cost of this task at $10m for IT departments of more than 25 people.

"An enormous workload needs to be staffed here, much of it, again, with people with the older mainframe skills," he adds.

Tony Coombes, director of recruitment group Software Personnel, says the very rush to develop client-server systems is adding to the jobs market turmoil, regardless of skills shortages.

"People are looking for employers 'doing sexy things', because it gives them a new challenge and looks good on the CV to be linked with a pioneering company," he says. "This means that even those doing client-server development have to constantly seek to motivate their people."

The skills shortages have also come at a time when employers are exploring flexible working, to the extent of taking on permanent staff on fixed-term contracts and often expecting people to take responsibility for their own development, says Mr Coombes. "People are 'going contract' because they feel insecure in permanent employment and say they might as well be insecure as contractors and get better pay," he says.

Growing use of contract staff to fill skills gaps is contributing to the 21 per cent costs increase, highlighted by the Delphi survey. It shows that almost two-thirds of computer departments use contractors. A fifth of the rest expect to turn to contractors in the next two years, while almost 60 per cent of existing users will increase their dependence on outsiders.

Delphi chief executive Tony Reeves points to the ultimate business impact of all the jobs market turmoil – "companies are putting-off updating their systems," he says. "This affects IT costs, especially if they want to downsize – but it also has a business impact, as they are not getting the new systems they want to support the general switch in emphasis from isolated departments to company processes, especially customer-focused processes."

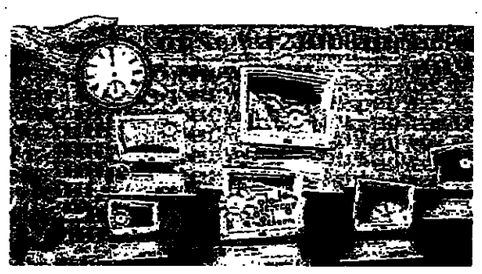
■ **Next month in this Review: Companies use creative thinking to beat skills shortages.**

FT-IT Recruitment: A new section starts today in UK editions of the Financial Times. It will appear each Wednesday in the UK and each Friday in international editions of the FT

SKILLS IN DEMAND

Q3 1995	Skill area	UK IT job adverts, 1995*	Increase in job advertisements over the previous year
1	Unix	18,358	34 per cent
2	C	16,883	23 per cent
3	C++	13,581	67 per cent
4	Cobol	12,272	61 per cent
5	Oracle	11,206	54 per cent
6	Windows	11,194	25 per cent
7	RPG400	7,838	15 per cent
8	VBasic	7,270	113 per cent
9	SQL	6,795	77 per cent
10	Novell	6,455	83 per cent

* Adverts in UK weekly trade magazines and national press. Data source: Computer Weekly/ SSP



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This will include the following main themes:
Converging Technologies in IT and Communications
IT Directions: Network Management.
Software At Work: Help Desks.

Main themes for the April 3 issue:
Focus on Desktop Computing
IT Directions: Video and tele-conferencing.
Software: statistical analysis and modelling packages in finance and industry.

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■ **European manufacturing industry:** IT Impact Survey

Review of key issues for senior managers

New survey on IT in manufacturing aims to influence national funding strategies

The health of manufacturing industry is critical to Europe's prosperity, and the IT industry has long maintained that investment in its products is a key to manufacturing profitability.

But is the IT used by manufacturing industry really addressing companies' business objectives? Is senior management successfully using IT investment as an instrument of organisational change and global strategy? And is the concept of partnership between IT-user and supplier a myth or a key aspect of IT policy?

This summer, the FT-IT Review will publish a summary of the results – and a number of selected case studies – from the European Manufacturing IT Impact Survey, which will answer these and other questions by examining practice in European manufacturing companies.

The survey – the first in what is intended to be an annual series – is being carried out by CATN, the pan-European IT market research and industry analysts. Its Cambridge office, Cambashi, is leading the project.

The issues to be analysed are known to be of serious concern to senior management across manufacturing industry. EMIT will identify the state of progress, current best practice and future projections.

The project is being funded by a group of 10 leading technical IT vendors with the purpose of determining how their services and processes can be more closely aligned with the strategic business objectives of their leading customers.

Results will be made available to the appropriate policy-making departments in national governments and the European Commission, with the aim of influencing their funding strategies in the area of technical IT.

For further details, contact Brian Gott or Mike Evans at Cambashi on +44 1223 460439, or fax +44 1223 461055. E-mail: 100431.3343@CompuServe.com

FT IT

Revolution in the public sector

Here and on the following eight pages, FT writers show how information technology is becoming crucial to governments around the world

■ Economic pressures

By Paul Taylor

Squeeze on the big spenders

Around the world, central and local governments and public sector agencies are among the biggest spenders on IT hardware, software and services

The public sector has become one of the most dynamic markets for information technology as governments seek to increase efficiency, cut costs, become more 'customer-focused' and respond to the new 'Information Society'.

In the UK alone, 100 government projects with a capital value of around £2bn have been identified under the Private Finance Initiative (PFI), giving some indication of the scale of the new opportunities opening up for the private sector.

Following the lead set in the 1980s by Scandinavia, the US and Britain, governments are re-examining their role: increasingly, they are seeking to withdraw from the direct provision of goods and services wherever possible, often through privatisation and outsourcing programmes.

"The machinery of government is being reduced in size, through focus, efficiency and the application of information technology," noted a recent report on the UK's Civil Service IT spending, prepared by Kable, the public sector research firm.

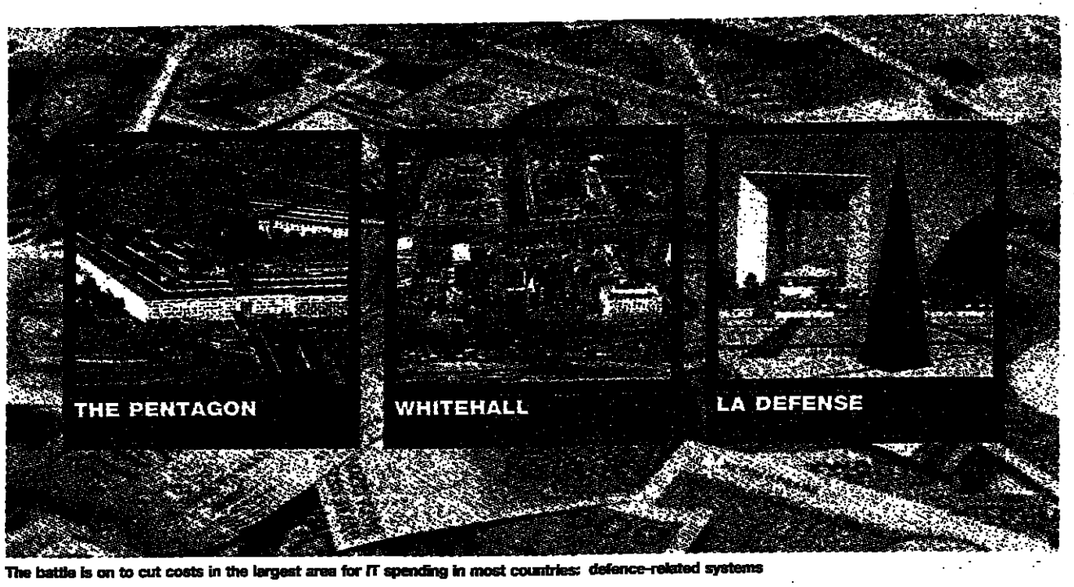
At the same time, governments and public agencies are turning to IT to help cut costs and improve the quality of service and value for money which they provide. In Britain, the PFI, Citizens Charter, Local Management of Schools, restructuring of the health service and move to unitary local authorities are just a few of the many structural changes under way in the public sector.

"All place increasing demands on government departments to provide higher levels of service and information, more efficiently and effectively while maintaining financial control," says BT Enterprise Solutions, part of the UK-based telecoms group.

"As a result, technology is increasingly important to today's government departments which look to IT and new data networks to reduce costs and increase efficiency."

Highlighting this, European Union member-countries spent a total of $7.86bn on public sector procurement of hardware last year and a further $16.1bn on software and services, according to European Information Technology Office figures.

In the UK, where the Government Centre for Information Systems (CCTA) advises departments on IT matters, central government IT spending will total £2.31bn in 1995/96, slightly down from the peak of £2.36bn the previous year.



The battle is on to cut costs in the largest area for IT spending in most countries: defence-related systems

The latest figure includes £609m on equipment, £407m spent externally on software, £698m on external services including consultancy, facilities management and maintenance, £130m on telecoms services, £411m on IT staff and £56m on supplies and consumables.

The biggest spending departments, as in most countries, are defence and health where IT spending accounts for 30 per cent of gross running costs. However, the main growth area in government IT spending in Britain, as elsewhere, in recent years has been facilities management or outsourcing.

In the UK, government spending on outsourcing has jumped from £31m two years ago to £211m in the current fiscal year – "Across the public sector, the provision of IT has been outsourced to a significant level," say Roy Dibble, director of the CCTA. "It is a trend across the whole of government".

Among the big outsourcing contracts awarded in recent years in the UK, EDS won a 10-year contract in 1994 to run the Inland Revenue's IT services. The first stage, implemented in July 1994 including the department handing over operations of the main tax systems. Under a second phase due, EDS is taking over responsibility for development work, including the development of a system to support the introduction of self-assessment.

However, with so many large and complex projects in the spotlight, some inevitably hit problems. In the US, for example the Internal Revenue Service's plans to spend as much as $23bn on new IT systems over the next 12 years has run into criticism from the General Accounting Office – *see report, page 6.*

Government IT procurement policy has also changed in recent years. In Europe, for example, most governments once gave preference to nationalhardware vendors such as ICL, Bull, Olivetti and Siemens Nixdorf. However, under EU procurement rules all large contracts must now be open and competitive.

Many in the government, as well as the IT industry, complain these new procedures are cumbersome, complex and add significantly to costs. "To win a government contract involves high costs," says Neil Smith, Microsoft's European government business manager.

Indeed, many in the industry believe that competitive tendering and other procedures, including PFI, actually reduce choice by pricing all but the largest companies out of the bidding process.

Equally importantly, most governments are also moving away from custom-designed software and using commercial off-the-shelf software ('Cots') instead. "In the good old days, departments used to employ thousands of programmers and 'rolled their own' software," notes Mr Smith. "But over the last five or six years, more and more have moved away from home-developed software".

As the leading operating system and shrink-wrapped software applications vendor, Microsoft has been a significant beneficiary of this trend in both North America and Europe. For example, under project 'Dawn' the UK Ministry of Defence Procurement Executive's new Abbey Wood headquarters in Bristol will have 5,000 terminals running Windows NT. Microsoft's enterprise operating system, and the MS Office 95 applications suite – *see report, page 9.*

Just a few years ago, project Dawn would have been built around a mainframe machine, but in government, as elsewhere, there has also been a marked trend towards downsizing and client/server systems.

Thus, from 1993/94 to 1995/96 the UK government's spending on PCs from suppliers such as Compaq, custom PC builder Centerprise International, Dell and Siemens Nixdorf, rose from £357.8m to £364.7m and they now account for 60 per cent of all hardware spending.

In contrast, spending on proprietary mainframe systems has fallen from £106.8m to £59m, while spending on Unix-based mainframes and minicomputers fell from £106.8m to £68m.

However, governments remain big buyers of the latest generation of mainframe machines. In the US, the Office of Management and Budget told Federal Agencies last year to begin to close or consolidate small and medium-sized data centres.

Such moves enable US government agencies to take advantage of newer and cheaper mainframe designs from IBM and most of its competitors, including Amdahl, which have shifted from costly emitter-coupled logic microprocessor designs to those based on complementary metal oxide semiconductor (Cmos) technology.

At comparable performance levels these new computers require 10 to 15 per cent of the floor space and as little as 3 per cent of the energy of older water-cooled mainframes.

For example, one study showed that consolidating three data centres into one 300Mip megacentre would save about 35 per cent of the costs

Because of their large spending-power, governments, although traditionally cautious IT purchasers, can also be technology drivers in some circumstances. For example, Spain's Ministry of Labour recently awarded Unisys a $12.8m systems integration contract to provide hardware, software and services in support of a national social security identification card project, know as Tass.

Using a regional network of public kiosks and personal smartcards, the project will use automated fingerprint technology to provide users

Continued on facing page

■ IT in the UK public sector

By Nuala Moran

Reducing costs and risks

Under the UK's Private Finance Initiative, IT companies win contracts to design and build computer systems – but they pay for the privilege. These companies will receive payments for processing work on new IT systems. The attraction for the government is that there is no capital investment – and risks are transferred to suppliers

Outsourcing of information technology has become one of the most powerful mechanisms for achieving the UK government's policy of cutting back the public sector. The majority of central government IT is now outsourced, as is much of the computing for the National Health Service. Around 10 per cent of local government IT operations are now outsourced.

At a stroke, outsourcing computer systems which process income tax removed 2,000 civil servants from the government payroll; handing over the IT in Department of Social Security offices achieved a similar cut.

Britain has the largest outsourcing market in Europe – up to £1.4bn last year from £1bn in 1994, according to market research by the outsourcing company ITnet, in its ITnet Index. This is consistent with independent research, published in the Holway report, which estimates that the market will reach £2bn a year in 1997.

Central government now accounts for more than a quarter of the UK market, with the annual value of its outsourcing contracts standing at £353m, according to ITnet Index, or £400m, according to the business strategy consultancy, the Coba Group. However, it is hard to be precise about figures because the government does not keep any overall tally of contracts.

Oliver Walker of the Coba Group says that two-thirds of central government's annual IT expenditure has now been outsourced. On the other hand, he says, the local authority market for IT outsourcing is not so well-developed. Under compulsory competitive tendering, around 10 per cent of local government IT, or £108m a year is now outsourced.

But much more is already planned, as tendering deadlines approach later this year – and in 1997 and 1998. Unless the requirement changes, 75 per cent of local government IT will be subjected to compulsory competitive tendering by the year 2000.

In the National Health Service, the dissolution of the regional health authorities, and the handing over of their IT operations to outsourcing companies, has created a market worth £73m a year in 1995, according to ITnet Index.

Four of the top ten contracts by annual value in 1995 were in the NHS. However, this may be misleading because the outsourcing companies which took over the regional operations had then to win contracts with the NHS Trusts to supply the services previously provided by the Regional Health Authorities.

Paul Hocking, manager of health business at Hoskyns, which won the South Thames RHA contract, says "this presents a challenge because it means winning business from lots of relatively small customers. To get the return on investment you have to get groups of them to take the same services".

He believes, however, that the business will grow – "most of the trusts are too small to run their own IT and will turn to the outsourcing partner when they need to develop new computer systems". Overall, public sector IT now accounts for around 40 per cent of the UK outsourcing market.

The two biggest deals, the Inland Revenue and the Information Technology Services Agency of the DSS account for more than twice the value of the other eight contracts in the top ten.

The central government move to outsourcing was dictated by the White Paper, *Competing for Quality*. This called for each activity of government to be reviewed, and either abolished, privatised, restructured or opened to the market.

Opening to the market takes two forms: market-testing in which the in-house providers must pitch against outside contractors. For example, teaming up with Logica, the in-house team won the £100m Customs and Excise contract, announced in June 1995. Or straight outsourcing, where the in-house team does not have a chance to bid, as in the £1bn Inland Revenue contract.

John Wright of the CCTA, the government centre for information systems, which has assisted in much of the market-testing programme, says: "It was estimated at the time contracts were let that there would be savings of 15-30 per cent against existing running costs and I believe that is the case in practice."

Although cost-cutting is obviously an incentive, one of the other drivers to outsource was the history of IT disasters, according to John Bateman chief executive of EDS Europe. "The cry was, 'It's three years over time, out of budget, and we need help'."

Of course, outsourcing existing computer systems does not avoid this problem, but now the government has hit on a scheme that it hopes will succeed – the Private Finance Initiative.

Under this policy, IT companies win contracts to design and build computer systems, but they pay for the privilege.

● Top ten public sector IT contracts awarded in the UK

Listed here are the customers, with annual value of contracts and the year they were awarded:

1. Inland Revenue, £120m, (1994).
2. Information Technology Services Agency, £82m, (1995).
3. Driver and Vehicle Licensing Agency, Swansea, £25m, (1993).
4. Scottish NHS, £20m, (1995).
5. HM Customs and Excise, £14.3m (1995, in-house with partner, Logica).
6. The Home Office, £10m, (1994).
7=. Birmingham City Council, £9m, 1989, renewed 1994.
7=. London Residual Body, £9m (1988).
8. LOLA, four London boroughs, £8m (1993).
9. South Thames Regional Health Authority, £8m, (1995).

● Among other public sector contracts awarded in the UK last year were:
Oxford Consortium, £5m.
NW Regional Health Authority, £5m.
London Borough of Southwark, £4.5m.
Health and Safety Executive, £3m.
London Borough of Kingston and Sutton, £2.9m.
Companies House, £2.5m.

Source: ITNet

Then, in much the same way as the builders of the Skye Road Bridge get their return through tolls for use of the bridge, the IT companies will receive payments for processing government work on the computer system. The attraction for the government is that there is no capital investment, and the risk is transferred to the supplier.

The first big IT contract to be let under PFI is for the development and operation of a new National Insurance computer system, known as NIRS2, awarded to Andersen Consulting in April 1995. Andersen has not revealed the cost of setting up the system, though industry estimates suggest it will be over £100m.

The system will become operational in 1997 and the contract is due to expire in 2004, but may be extended by up to a further three years, if merited by good performance.

Although he acknowledges "it would be better to get paid as the project goes along", Ian Watmore of Andersen Consulting says the attraction of PFI deals is that they are about creating the future. "Traditional outsourcing is rather like undertaking – you mind the asset until it is dead, and then you bury it."

PFI, on the other hand, presents an opportunity to invest in what is right for the future. From a business point of view, this is much more attractive than going into cost-cutting mode to run what was created in the past."

It is government policy to use private finance for all capital expenditure. Other IT PFI contracts now in the pipeline include computers for 20,000 post offices and computerising the Lord Chancellor's Office, which among other activities runs the courts in England and Wales and administers Legal Aid.

Using private finance will increase the pace of government IT projects, according to Ron Nield of Mercury Communications. "The Civil Service is averse to risk-taking; progress will be inevitably faster with commercial involvement."

However, the experience to date is that the complications of evaluating PFI deals has slowed-up the already burdensome procurement process, and that it costs at least twice as much to bid for a PFI deal as a standard contract. Meyrick Williams, who is responsible for government business at Computer Sciences Corporation (CSC) believes "this is mainly to do with teething troubles ... PFI is new to all of us, and requires a big change in perspective".

■ UK's drive to outsource IT services

By Nuala Moran

Rush for big contracts

Competition has intensified among the larger suppliers of outsourcing services in the public sector

In the early days, outsourcing – or facilities management – was regarded as rather menial, and snidely referred to as "box-minding".

Today, however, outsourcing is the most fashionable activity in IT and almost every company in the industry is busy re-inventing itself as an "outsourcing business". For example, IBM, the computer giant, created an outsourcing division in 1992; Bull Information Systems set up Integris in 1994, and last year Siemens Nixdorf established Siemens Business Systems as a distinct outsourcing unit.

Much of this metamorphosis has been prompted by the government drive to outsource IT, which has seen mouth-watering contracts up for grabs. The largest UK contract awarded to a single supplier, to operate the Inland Revenue computer system, went to the outsourcing market leader, the US company EDS in 1994. EDS took on 2,000 staff and the responsibility to meet all Inland Revenue's current and future IT requirements in the £1bn deal.

In 1995, a further 1,500 UK government employees were transferred to EDS when it won a share of the largest IT outsourcing contract to have been let by the UK government, the Information Technology Services Agency (ITSA) the body that runs the computer operations of the Department of Health and Social Security.

EDS's turnover topped the $10bn turnover mark last year. The importance of outsourcing is demonstrated by the fact that more than 50 per cent of its 80,000 worldwide workforce joined the company through outsourcing deals. And the value of its business with the UK government is highlighted by the fact that of 16,000 staff in Europe, it acquired 3,500 through the Inland Revenue and ITSA deals. EDS also handles the IT side of the Driver and Vehicle Licensing Agency in Swansea.

EDS shared the ITSA contract with the French/British company Sema Group, which last year made £174m of its £596m turnover from outsourcing. While EDS will operate ITSA's mainframe processing centres, Sema is responsible for the desktop computer systems in DSS offices around the country.

Sema also won one of the other large central government contracts let last year, the £50m deal to provide IT services for the Home Office. This includes computing for the Prison Service, the Passport Agency and the Forensic Science Service.

The third partner in the ITSA deal, ICL Sorbus, (a venture created in February 1995 to exploit the outsourcing market), will be responsible for data communications, including software distribution.

ICL has a better-known outsourcing arm, the CFM Group, leader in local government outsourcing, with over 50 per cent of the contracts let to date. CFM had a turnover of £120m in 1995, of which 45 per cent was in local government.

The 'number two' in UK local government outsourcing is ITnet, with 25 per cent of the market by value. The company, which recently became independent of its parent Cadbury Schweppes through a management buyout, has 900 staff and had a turnover of £50m in 1994.

The other company to have a significant share of the local government market is Capita Managed Services, part of the Capita Group which employs 900 staff and had a turnover of £74m in 1995.

The abolition of the UK's regional health authorities has created another growth area for IT outsourcing. The largest contract in 1995 for the NHS in Scotland went to the US company Computer Sciences Corporation – CSC employs 33,000 people worldwide and had a turnover of $3.8bn for 1994-1995.

The company now has annual revenues of more than £50m in the UK public sector, including defence. The largest health authority contract in England and Wales, for the South Thames RHA, went to Hoskyns, the UK arm of Cap Gemini Sogeti, the largest European computer services company with 20,000 staff and revenues of over £1.2bn in 1994. In the UK, Hoskyns employs more than 4,500 people, a rise of over 750 in 1995, and has announced plans to recruit a further 500 in 1996.

One of the most significant government outsourcing contracts, to set up a new National Insurance computer system, does not appear in any league tables, because its value was not revealed. This contract, won by the management consultants Arthur Andersen, is the first under the Private Finance Initiative.

Andersen will design, build and pay for the system, estimated by the industry to cost more than £100m. The company will then receive payments from the government linked to the volume of business it processes. The system is due to start operating in 1997. Andersen's contract runs to at least 2004, and possibly 2007.

But not all the UK's larger government outsourcing contracts have gone to outside contractors: one of the biggest, at HM Customs and Excise went to the in-house team, with the support of the IT services company, Logica.

■ The political impact of information technology

By Philip Manchester

How IT delivers more power to the people

'As citizens who have become more computer-literate, future populations are not going to be happy about handling government bureaucracy in the way they have in the past. They expect something better now'

Information technology has been a political hot potato since the mid-1960s when the UK's former prime minister Harold Wilson linked the future of Britain to the "white heat of technology".

Through the 1960s and 1970s, government initiatives aimed at promoting indigenous IT industries were a regular feature of political manifestos across the western world. This, of course, was the time of the Cold War and massive military spending – much of which went directly into IT projects.

This helped to lay the foundation for the spectacular growth of the IT industry. IT was seen as a strategic industry and, in the same way that any worthy country had to have its own "flag-carrying" airline, every industrialised country saw itself as a contender in the emerging IT industries.

During the 1980s, the end of the Cold War, military spending cuts and the emergence of new forms of IT through the growth of microprocessors, changed this dramatically. Most countries, for example, gave up any pretence at having their own chip-manufacturing capability and concentrated on areas where they had a historical presence.

In the 1990s, attention has switched from the competitive production of IT products to gaining competitive edge through the *use* of IT. The recent enthusiasm among politicians across the northern hemisphere for the so-called information superhighway is based on using IT effectively – rather than producing world-beating products.

"We've had three ages of IT – the first two characterised by hardware and the most recent by software," says Mr Mark Gladwin of the UK's Central Computers and Telecommunications Agency (CCTA). "The mainframe era was about sharing scarce resources and automating things that we understood. The PC era was about surrounding the mainframe with personal computers. Since about 1992 – when the network allowed us to link hardware together and the Internet gave us a way to break out of the hardware, attention has moved to software.

"We have gone past the era when the technology was an impediment and we can start thinking about finding the most cost-effective solutions."

Mr Richard Spook, UK managing director of the French computer giant Groupe Bull, says that politicians' attitude to the use of IT in government are changing: "Apart from strategic necessity, the emphasis is on the use of IT in government administration. Government departments are seeing IT as a way of doing things differently."

Wider access

This, he adds, is partly the result of pressure from citizens who have become more computer-literate – "future populations are not going to be happy about handling government bureaucracy in the way they have in the past. They expect something better now."

Mr Andrew Miller, Labour MP for Ellesmere Port and Neston, acknowledges the change and sees current IT developments as a challenge both to government and to politicians: "For the first time, IT will empower people lower down the structure of government. Civil servants have greater access to information across departments. This challenges the traditional vertical integration of government administration where information only meets at the top at the Cabinet level. IT means that discussions can be better managed lower down the hierarchy."

In the UK, the Central Information Technology Unit (CITU) has been set up to look at the possibilities IT offers in this area and, although Mr Miller is unconvinced about its short-term success, he accepts that it is an idea that should be pursued.

"I don't believe there is the political will at the ministerial level – but I believe it should be developed. It could lead to public services benefits at the local level so that cross-departmental issues can be handled more effectively and more sensitively," he says.

Mr Miller is a director of Eurim, a cross-party association of MPs, MEPs and Peers together with corporate members which was set up in 1985 to advance the UK's contribution to pan-European IT activities. One of its key roles is to improve the level of information available to politicians on IT issues.

Andrew Miller, MP: 'IT will empower people lower down the structure of government'

"It's about building a bridge between parliamentarians and the private sector so we are able to discuss IT issues against a background of what is really happening. We can then go back and advise our respective parties," he explains.

International co-operation on IT issues is also growing as governments recognise that they all face similar problems in re-engineering their national IT infrastructures. Early last year, the G7 countries initiated several co-operative projects aimed at pooling IT experience in the context of government.

The Government On-line project, proposed by Canada and sponsored by the EC, is one of the largest. It covers several areas of IT development, each sponsored G7, EC members and other countries such as Australia, Sweden, Switzerland and Israel.

"The aim is to exchange information on the ways we are doing things in IT. Use of electronic mail for communications within government, on-line information services so people can see what is going on and interactive information kiosks," explains Mrs Ruth Kerry, co-chair of the project, which uses IT to show how new technology may be used in government administration – "we're using a variety of technologies – such as Adobe Acrobat to exchange documents and Picturetel for video-conferencing."

Examples also include the use of directory services to set up standard government directories with the X.500 standard which is sponsored by Canada and sharing information across departments, which is being led by the UK.

The US is looking at "one-stop shop" strategies for delivering government information to citizens and Japan is looking at the on-line provision of licences and permits.

Other projects include on-line support for democracy (Sweden) and a compendium of government activities in IT (Canada).

In the long term, the results of these projects will filter through to government administration – although they will not be without a political dimension. The vertical structures of government will not give in easily to the new wave of IT. But that is another story.

■ Project Vote Smart

Lifting the lid on US politics

Stephen McGookin looks at what is called 'a voter's self-defense system'

Just as governments are increasingly using the Internet to distribute information – either purely factual or with their own particular "spin" – citizens' groups have just as expertly used the technology to let politicians know they do not have everything their own way, and keep tabs on their performance.

One of the most successful is Project Vote Smart, a way of electronically taking the lid off what is happening in the confusing and sometimes downright murky world of US politics. And that is exactly what the graphic on its World Wide Web home page (*www.votesmart.org*) represents, with the slogan: "It's time to look in on the hired help."

Vote Smart, which calls itself "a voter's self-defense system," provides access to a huge array of information on elected officials and candidates for national office and gubernatorial posts all across the US.

The project is the main programme of the Center for National Independence in Politics, housed at the Oregon State University campus in Corvallis, and was set up in March 1992.

In the course of that election year, it handled more than 200,000 telephone requests for information, with 34,000 calls on election day itself.

Vote Smart is funded by individual contributions and by money from various non-partisan foundations such as Carnegie and Ford. Since 1994 – the year it went online – it also has an east-coast office at Northeastern University in Boston.

Its honorary co-founders are two former presidents; Democrat Jimmy Carter and Republican Gerald Ford. Among the founders are former Democratic Presidential candidates Michael Dukakis and George McGovern; as well as current Republican Speaker of the House Newt Gingrich and former GOP Presidential candidate Barry Goldwater.

Such a mix of unlikely political bedfellows serves to emphasise the impartiality of Vote Smart and, like its nearest equivalent in print, the venerable Almanac of American Politics, its increasing indispensability.

US Congress members are listed alphabetically and state-by-state. What you get when you call up a Senator is a list of committees on which they sit, a list of their sources of campaign funding, details of their voting record – arranged by subject or chronologically - along with links to how other Congressmen voted on specfic issues.

There is also a performance evaluation by special interest groups, as well the politician's responses to Vote Smart's own questionnaire, the National Political Awareness Test, if they are up for re-election in the last or current cycles.

In December, twelve out of fifteen Republicans seeking their party's presidential nomination agreed to submit answers to Vote Smart questions on a range of policy topics. Buchanan, Fletcher and Forbes were the "flunkees", while the responses of the others can be read at the Web site.

Although it is fiercely non-partisan, its new service Congress Track allows citizens to monitor specifically the activities of those Republican members who signed up to the "Contract with America" at the 1994 mid-term elections.

Financial data on the candidates is provided by the National Library on Finance in Politics, a non-partisan organisation which gets its information from the Federal Election Committee, to which candidates and PACs (political action committees) must, by law, report.

"The entire effort is aimed at providing tools to ensure public accountability by elected officials to those they represent," is how the project defines its mission; and its site is also a rich resource of related links to other news and political information – like Congressional Quarterly's Campaign Watch bulletins, as well as a guide to where you can cast your virtual vote and take part in online political discussions.

Although it is held in high esteem by political insiders, it is the incredible number of ordinary voters who are using the service that is the best testimony to its success and necessity.

One user left the following endorsement: "I am a divorced, unemployed mother of two small children. I think your project is wonderful and long overdue. I wish I could contribute, but I just can't afford to.

"PS. I have decided I can't afford not to."

● *To contact Project Vote Smart if you do not have Internet access, write to: Project Vote Smart, 129 NW Fourth Street #204, Corvallis, Oregon 97330; or from inside the US you can call toll-free on 1-800-622 7627.*

Better public services

Continued from facing page:

with secure access to personal information stored on smart-cards, as well as government healthcare databases.

Governments are also beginning to adopt innovative approaches to IT management. In Britain, the Ministry of Defence has forming the first defence information systems agency, the Logistic Information Systems Agency (Lisa), under Brigadier Alan Pollard, chief executive.

Formed out of the army's logistic IT directorate, Lisa intends to sign partnership agreements with commercial companies to look for new business in other defence and government departments.

On both sides of the Atlantic, governments and public sector agencies have also discovered that the Internet can be a powerful tool for satisfying their commitment to open government and disseminating the vast stores of information which they hold.

They are also actively exploiting the potential of electronic commerce, for example through EDI ordering systems and the broader use of electronic mail. In Brussels, for example, Logica, the UK-based computer services group, is helping advisory committees and working groups improve their e-mail communications via the Interchange of Data between Administrations (Ida) programme, which aims to build a trans-European public administration network.

More generally, as the CCTA says in its latest annual report, "the development of new applications for IT, especially information superhighways, promises a revolution in public services over the next ten years. Services should become easier to use, quicker and better targeted".

But the Agency also adds: "Possibly the greatest challenge will be managing information so that it can be used in sensible ways. The mechanisms to achieve this must be built into plans for [government] IT . . the superhighway is not here yet, but existing technology can do much to improve services – the challenge is to use it in a way which helps and empowers the citizen."

■ US Internal Revenue Service

By Tom Foremski in Forestville, California

Big IT modernisation plan runs into fierce criticism

Outdated systems in the US lead to billions of dollars being lost in in uncollected taxes

The US Internal Revenue Service (IRS) is undergoing what is the largest civilian computer modernisation programme in history. Starting in the late 1980s, the agency expects to spend as much as $23bn on new IT systems by the year 2008.

But like all complex projects of this kind, the Tax Systems Modernisation (TSM) project has run into big obstacles and problems, including strong criticism from the US General Accounting Office (GAO) that it suffers from numerous technical and management problems and that taxpayers' money is being wasted.

The IRS currently relies on an antiquated computer system in processing about a billion paper documents and over 204m tax returns a year. It mostly uses mainframe computers from the 1960 era and a tax processing procedure that has changed little over the past 30 years. The IRS estimates that its lack of modern IT systems is partly responsible for its failure to collect about $114bn in taxes each year.

The agency says it needs new IT systems to help it process a vast amount of paper documents and gain ready access to the information on those documents. For example, it can take as long as six months to find paper-based tax information.

The US Congress threatens further cuts in the Tax Systems Modernisation project, although outdated and inefficient IT systems result in billions of dollars in taxes remaining uncollected each year

The IRS has already spent $2.5bn on new computer systems, and it says its investments have already yielded valuable results. It has:

- Extended electronic filing of tax returns for individuals and businesses.
- Improved access to tax records by installing thousands of new terminals.
- Brought in new optical image document processing systems.
- Managed to recover billions of dollars in taxes through the use of its new systems.
- Reduced fraudulent claims for tax refunds.

Despite the fact that for every $1 it receives in government funding, it can produce $3 in tax revenue, the IRS has nevertheless had to continually battle cuts – and threatened cuts – in the TSM project by the US Congress. This is mainly due to the watchful eye of the GAO which says that the IRS does not have a good business plan for upgrading its computers and that its goals are not well-defined or well-administered. "IRS does not have a comprehensive business strategy to cost-effectively reduce paper submissions, and it has not yet fully developed and put in place the requisite management, software development and technical infrastructures necessary to successfully implement an ambitious world-class modernization effort like TSM," stated a GAO report released late last year.

The GAO has placed TSM on its list of high-risk government IT projects which means that it will be under close scrutiny over the next few years to make sure it is on track and fulfils its obligations.

The TSM project is complex. It consists of at least 50 modernisation projects which includes:

- The $1.3bn Document Processing Systems project, which aims to convert all IRS tax forms into electronic images that can be more easily distributed to all IRS tax offices. This project is scheduled to be competed in the year 2000.
- The Corporate Systems Modernization/Mirror Image Acquisition is focused on replacing older mainframes at key processing centres and is valued at $88m.
- The Treasury Multi-user Acquisition Contract is a $1.4bn project to make it easier to request tax information from IRS staff.
- The $500m Integration Support Contract is a ten-year project that will ensure that all information systems elements of TSM will work together. However, the GAO has already identified three large programmes that are "incompatible" with the overall TSM project.

Electronic filing is a key part of TSM and its goal is to process 80m tax returns electronically by 2000. However, this programme has run into problems and the rate of electronic filing is falling. This is partly due to longer processing of tax refunds because the IRS discovered that more than 40 per cent of fraudulent tax returns asking for a tax refund were filed electronically. In response it has stepped up scrutiny of electronically filed tax returns and delayed refunds.

While the IRS has admitted that some parts of the TSM project have run into problems, it points to significant progress that has been made. Electronic filing, for example, continues to grow, cutting the amount of paper documents the agency handles and also helps to reduce the almost 15m maths errors normally found on tax returns.

The IRS has also made it easier to file simple tax returns through its TeleFile programme which allows individuals to use a touch-tone phone to file a simple return.

And new programs for corporations, such as the Taxlink program, allows employers to deposit payroll taxes electronically and is growing in popularity as companies realise the paperwork processing cost-savings it offers.

The IRS also offers the FedWorld on-line information service which gives access to tax forms and information on tax regulations to anyone with a personal computer and a modem.

The agency's Automatic Under-Reporting system is helping to recover new tax revenues by automatically matching financial information from financial institutions and employers, to individual tax returns. This catches individuals who are under-reporting income and is expected to save $160m over the next seven years.

A chief goal of TSM is to make it easier for individuals to file tax returns. The IRS says that it only has about 83 per cent compliance among people who are required to file tax returns and the agency believes if it can simplify the tax-filing process, it will have much better rates of compliance.

The ideal scenario is to allow the IRS to quickly assemble all relevant tax data for the taxpayer. But to do that, it would need access to financial records held by banks, credit card companies, employers and savings institutions. But to attain this goal, the agency would have to battle criticism of "Big Brother" ambitions, in addition to the criticisms it already faces.

■ Procurement credit cards

By Tom Foremski

Plastic route to big savings

US government leads the way in cutting the cost of procurement

The US government has pioneered the use of credit cards issued to staff members to purchase supplies and dramatically cut the cost of procurement – a lead that US corporations are rapidly following.

Known as procurement cards, these are credit cards issued to staff members by American Express, Mastercard and Visa. These enable staff to purchase low-cost supplies directly and bypass most of the normal procurement paperwork.

In most organisations, if an office manager, for example, needs to order more floppy disks, a requisition form is filled out, it goes for approval, then is handed to the purchasing department. A supplier is selected, a purchasing order (PO) is filled out and despatched.

Later as the goods are received, a receive notice is sent to accounts to match the PO and invoice, and a cheque is issued. Then accounts tracks the cheque to make sure payment cleared.

This common procedure can cost anywhere from $50 to $300 per purchase request, which is a high overhead for an item that might cost only $20. It also extends the procurement time to about three weeks on average. The advantage of procurement cards is that much of the paperwork can be eliminated and thus save US government agencies substantial amounts in document processing.

The US government's use of procurement cards began in 1989 with the US General Services Administration (GSA) granting a contract to First Bank System to issue special Visa cards to government employees for making small purchases.

The government staff were issued an Impac (International Merchant Purchase Authorization Card) Visa card. Under the first part of the five-year programme, 65,000 government employees were issued with the card. When the programme was renewed in early 1994, there were plans to add an additional 75,000 staff who are authorised to use the card.

"The Impac program has been very popular," says Colleen Lindow, director of corporate cards and purchasing at Visa. "The success of the federal programme has drawn interest from state governments also."

Comparisons

Unlike the private sector, where procurement cards are limited to purchases of typically under $250, the US government defines a "small item" purchase as $25,000 or less. However, not all suppliers are set up to take credit card orders, especially since they have to pay a transaction fee to the credit card company.

"It has been a challenge recruiting suppliers," says Lindow. "But they quickly realise that it can bring them new business and also they get paid much more quickly.

"When you say to a supplier: 'We will pay you in three days – and take all the risks', they quickly see that it's better than waiting 30 days or more for payment."

While procurement cards are used like regular credit cards, they are restricted in what kinds of products and services can be charged against them. Visa employs a four-digit merchant category code based on similar codes used by the US government in classifying suppliers. Each card is restricted to certain types of merchants.

"You can't, for example, use the cards to charge for hotel or restaurant expenses. And you can't book an airline ticket with them," explains Lindow.

Each government Impac Visa card is programmed with the spending limits and approved merchant categories that each individual is authorised to handle. Currently, their use is limited to maintenance, repair and routine operating purchases, but there are plans to extend their use.

The US government says it is saving money, although it has not released details on how much it saves per purchasing transaction – "the government could save more money if it wasn't for the enormous amount of rules and regulations that it has surrounding the use of procurement cards," says Steve Kopp, a consultant on procurement card use at Gunn Partners.

One of the disadvantages of procurement cards is that companies are often not able to collect as much data on the purchase as they normally receive through a normal PO cycle. All the credit card companies are striving to improve data capture and a key element is capture of sales tax data, or in the case of the government agencies, making sure that they don't get charged for sales tax.

"Data capture is a big issue," says Kopp. "It means that you not only have to supply merchants with special terminals but it also means that the merchant has to key-in additional data rather than simply record your credit card number.

"For some merchants with low-paid staff, there isn't much of an incentive for them to key in that data and you might not be able to trust that data."

Many merchants are now beginning to view acceptance of procurement cards and the additional data capture requirements as a competitive opportunity in doing business with the government or corporations.

Kopp points out that the use of procurement cards is not "a one-way street – the suppliers benefit, too".

Less paperwork

Suppliers can eliminate a lot of paperwork at their end, if they decide to accept procurement cards – "this can make up for the installation of extra equipment and staff training. Plus, they get their money a lot quicker," says Kopp.

Much of the data capture problem can be improved through better software and links between computer systems that can send data between suppliers, banks and government agencies.

The credit card companies benefit from procurement cards in that they can sign up new customers both at the user end and among suppliers.

US government's use of procurement cards is also helping to lead the way in the private sector where procurement card use is rapidly expanding and saving millions of dollars in costs.

■ Government use of the Internet

By Louise Kehoe in San Francisco, California

A key role likely in US presidential election

Politicians are increasingly using the 'Net to communicate with potential voters

The miaow of Socks, the White House cat, may not be very different from that of other felines. Featured as one of the attractions on the White House "home page" on the World Wide Web, this sound has, however, been transmitted to computer users all over the globe and helped to draw attention to growing US government use of the Internet.

Whether visiting the virtual White House or searching through the Congressional Record in the Library of Congress's Thomas database, Internet-users now have access to vast amounts of US government information, much of it free of charge.

US politicians are also increasingly using the Internet to communicate with potential voters and the new medium is expected to play a significant role in this year's presidential election.

For business users the Internet offers a convenient and quick method of accessing US government data that might otherwise take weeks to obtain through conventional library sources. However, the huge quantities of data at US government sites create a challenge for anyone attempting to find answers to specific questions.

A good starting point for Internet users exploring US government resources is FedWorld, one of the most comprehensive US government Internet sites (*http://www.fedworld.gov*).

Maintained by the National Technical Information Service (NTIS), an agency of the US Department of Commerce, Fedworld is packed with information and links to other US government as well as offering search facilities. Thomas (*http://thomas.loc.gov*), provided by the Library of Congress, is the source for information about US legislation and Congressional debate. As well as providing the text of all legislation passed by the 104th Congress, it includes updates on the status of pending Bills and the full text of the Congressional Register.

The American Memory Project, another Library of Congress effort, provides Internet access to more than 30,000 digital images, manuscripts, motion pictures and sound recordings. It can be reached via the Library's home page (*http://www.loc.gov*)

The Web Interactive Network of Government Services (Wings) program, managed by the US Postal Service, aims to make it possible for individuals to conduct personal business with the government electronically. Whether it be filing taxes or registering for a driver's license, or to vote.

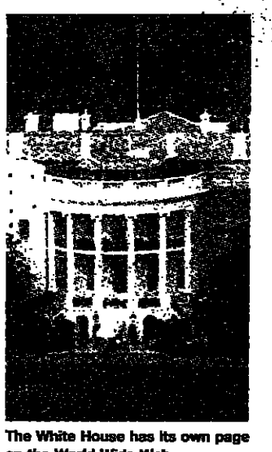
Users will access Wings from their own PCs or from public kiosks. A prototype system, linking 1,500 US government WWW sites is scheduled to begin testing in early 1996.

The Federal Web Locator (*http://www.vill.edu/Fed-Agency/fedwebloc.html*) is a search tool that can be used to find information from various federal agencies. Another popular US government site on the World Wide Web is the Census Bureau – (*http://www.census.gov*) which provides a huge database of demographic and economic statistics for the US.

Users can search for population, housing and economic statistics for counties, states and metropolitan statistical areas as well as US regions.

The Census site also offers additional information in the form of "statistical briefs," which are concise analyses of social or economic trends such as the growth of the elderly population of the US.

The US Government Printing Office's home page (*http://www.access.gpo.gov/*) is similarly a goldmine of valuable information for businesses, and



The White House has its own page on the World Wide Web

is updated daily.

Those looking for a quick route to riches might do better, however, to check out the Federal Bureau of Investigation's 'Ten Most Wanted' list, complete with photographs, on its WWW pages (*http://www.fbi.gov/toplist/html*).

And for those obliged to give Uncle Sam his share, the Internal Revenue Service has a WWW site with tax forms and answers to frequently asked questions (*http://www.ustreas.gov/treasury/bureaus/irs/irs.html*).

Critics charge that the US government has not moved quickly enough to establish Internet sites to disseminate information. However, it is clearly moving faster than most other national governments to demonstrate the advantages of electronic publishing.

In the political arena, WWW sites provide every flavour of opinion as well as basic voter information. The official "Bob Dole for President" site (*http://www.dole96.com/*), for example, offers biographical information and will track the Republican senator's progress through state primary elections and regional caucuses.

Phil Gramm, another Republican hopeful, provides video and sound clips on his election campaign on Internet site (*http://www.gramm96/org*) as if to prove that he is in the forefront of new technology.

Politics USA, a joint effort of the National Journal and the American Political Network, provides links to all of the candidates WWW sites as well as news updates.

About 30 US senators and more than 40 members of the House of Representatives have established sites on the Internet. Democrats claim to be the majority party in cyberspace, despite their minority role in "real life".

For those who distrust all politicians, the Skeleton Closet, a WWW site dedicated to publishing "dirt, attitude and opinionated character reviews of all the presidential candidates" (*http://www.real-change.org/*) is not to be missed.

Some of the best jokes about the presidential election campaign can be found at the headquarters of Scampaign '96 (*http://www.comedyusa.com/Home.html*).

■ Boost for US IT companies

By Geoffrey Wheelwright

$20m joint research venture

Government and industry co-operate in advanced PC hard disk development

As a joint project of industry and government, work is under way in the US on the development of a credit card-sized hard disk so fast, so light and so low-powered that it will provide one gigabyte of storage (about the same capacity as the hard disks in today's desktop systems) that can be used inside a hand-held personal computer.

The work is being led by the California-based hard disk drive-maker Micropolis in a joint development with several other technology companies and partially funded by the US government. According to the project leader at Micropolis, Mr Eric Dunstan, the $20m research programme is being 50 per cent funded by the US Advanced Research Project Agency (ARPA) under its Technology Re-investment Program (TRP) as an attempt by the Clinton administration to boost the fortunes of US technology companies.

"Data storage was considered a strategic area for the administration," explains Dunstan. "The basis of this is the creation of dual-use product – the investment will cause two things: it will sponsor commercial developments and also make more cost-effective and more immediately-available defence projects.

"What is different about this is that they've decided to support only 50 per cent of the cost. The first impact is that this industry is having to put some of its own money in – so we will develop projects we were going to develop anyway, but bring them forward. This is being used to accelerate state-of-the-art products by about two years.

"What the government wants as an end-result is a disk drive. In pursuit of that, we will have to develop components for this on a fast track."

Partners who will work with Micropolis on the component development for this project include leading hard disk controller makers Adaptec, electronics designers Silicon Systems and CalTech at UCLA. The drive will be used in palmtop computers (generally known as personal digital assistants – or PDAs) and what Dunstan calls "tactical digital assistants".

He says they will be used in the tactical area to store large and detailed computerised maps of battlefield area for display on the PDA – even to the point of using a "head-up display" (or HUD, used in aircraft to present flight instrument data in front of pilots in a way that allows them to simultaneously look directly ahead out of the cockpit).

This HUD would project an map image taken from the PDA's hard disk to superimpose on the real landscape - and could be linked to a global positioning system (or GPS) to accurately pinpoint the location of the user before pulling up map data. Another important aspect of the project was that a government condition for the funding included a commitment by Micropolis to commercialise this product – producing a "technology demonstration" within two years and a shipping product

Continued on facing page

■ Transition to resource accounting

By Rod Newing

Move to on-line on-time systems

Commercial software packages are assisting with a massive change in central government accounting

In the biggest change in government accounting since William Ewart Gladstone – the 19th century British statesman – introduced the current system in 1866, central government is in the process of adopting UK generally accepted accounting practice.

Described by the Chancellor of the Exchequer Kenneth Clarke as "a major milestone in modernising the state," the implementation of commercial accounting packages is playing a key role increasing public sector efficiency.

Central government will introduce resource accounting in most departments by April 1, 1997 and in all departments by April 1, 1998, with resource budgeting following by the year 2000. Resource accounting involves normal accounting procedures, including recording fixed assets and accruals. The concepts of resource accounting have already been proven in the executive agencies, which have implemented standard accounting packages to manage themselves on a commercial basis.

Most government departments are using old legacy mainframe systems which were designed specifically for cash accounting, as laid down in the Exchequer and Audit Departments Act of 1866.

Each department is making its own decision on the software needed to implement resource accounting and many are choosing to implement a commercial package. These are proving to be ideally suited for all the departments' new requirements.

The main problem lies in the need to continue to report to Parliament on a cash basis until the full implementation cycle is complete. Commercial packages can produce the summary level cash figures which the Treasury needs to retain control through Public Sector Borrowing Requirement target, but they do not all cope with detailed reporting on the existing cash basis.

The problem lies with the way most accounting software is written, with cash details retained in a separate purchase ledger from cost details in the nominal ledger. Detailed reports on a cash basis need to report on information split between the two ledgers.

Oracle, which is strong in central government accounting systems, is one of a number of vendors who have been able to build additional "cash vote" modules which can generate the necessary additional cash reports from the two ledgers.

Cash-based reporting is much simpler for those accounting vendors who have written their software to utilise a single combined ledger. This unified ledger identifies each individual account as either being either nominal, revenue or purchase and is far more flexible for many accounting requirements. Systems Union, the market leader in executive agency accounting systems, operates a combined ledger, as do Coda, SquareSum and others.

Progress so far is encouraging – "this is one of the most significant changes in the process of government this century," says Mr John Garnett, director of resource management strategy at the Ministry of Agriculture, Fisheries and Food. "We have successfully implemented Oracle Financials, modified to accommodate dual cash and accrual reporting, and are well on the way to delivery of resource based accounting and budgeting within the timetable."

Introduction of new accounting systems have not posed any additional problems so far, despite the number and scale of projects undertaken.

"We had the usual problems of hardware and software not being as compatible as we were led to believe," says Mr Ian Elrick, head of accounting services at the Department of the Environment, who are using software developed for the Australian government. "Most of the vendors stretched the truth a bit in their responses."

Another problem arises from the departments' lack of knowledge of commercial software – "the early tenders we received clearly showed which system was currently being used," says Mr Laurie Mascott, director of the government division at Systems Union.

"Departments were trying to specify their current system with the addition of accrual accounting. They now have a better understanding of what commercial software can offer and are being less restrictive in their requirements It would be a mistake to replicate the current systems."

"Some departments are taking the opportunity to overhaul their internal systems as part of the exercise," says Mr Richard Knight, of the Treasury's resource accounting and budgeting team. "They are able to draw on the example and experience of the Executive Agencies."

Resource accounting will require departments to identify and value assets so that they can be capitalised and depreciated by the new systems, reflecting their economic significance – "this process has been considerably eased by existing initiatives to identify assets," explains Mr Knight.

Separate from the accounts, the White Paper requires a meaningful analysis of output and performance from each department and a report on the achievement of its objectives. The focus on outputs suggests that activity-based costing may be involved, which may require the use of one of the existing specialist ABC software packages.

"Resource accounting is accrual accounting with objectives," says Mr Mascott. "Outputs are to be reported separately, which effectively means the introduction of activity-based costing."

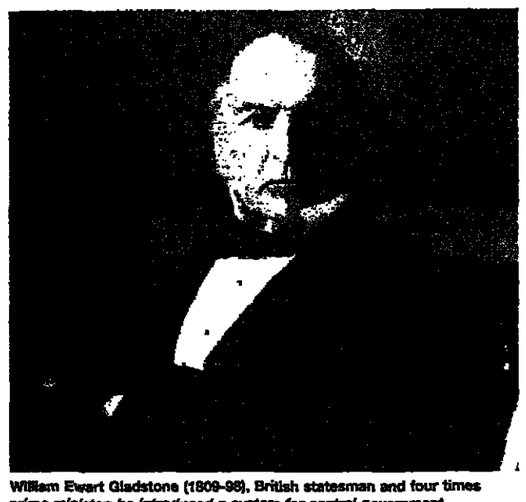
The problems this may cause are hinted at in the White Paper, which says that "the difficulties are not under-estimated."

However, the main challenge has been generating acceptance of the new ways of working which these new systems involve. Civil service users have been trained in the Gladstonian way of thinking and have to adopt new philosophies and ways of working with their new systems.

"Neither the accounting nor the IT is fundamentally difficult, if managed properly," says Mr Garnett.

"The real problems lie in changing the culture. The chancellor has described us as measuring our performance by the rate at which we burn £10 notes. The new performance measures are intended to represent our equivalent of 'profit' in the private sector and to demonstrate that we are delivering value for money," adds Mr Garnett.

"The challenge is to combine an effective management culture with the existing intellectual culture of the Civil Service. Activity Based Costing is one of several tools we will use."



William Ewart Gladstone (1809-98), British statesman and four times prime minister: he introduced a system for central government accounting in 1866. It is still in use today

Cultural changes are assisted by better management reporting and "access to information through drill-down," says Mr Elrick. "People can now run their departments from their desks. On-line on-time is the main driver that commercial accounting systems can offer to the process of cultural change and we are moving forward very rapidly."

"This is an exciting development for central government," says Andrew Likierman, head of the Government Accounting Service. The challenge for the IT industry will be to help those involved to understand and use the new information systems."

Whereas resource accounting is being implemented within the Civil Service, legislation is still required to implement it for reporting to Parliament. When they have approved it, commercial accounting systems will have played a leading role in modernising central government.

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■ EDI and electronic commerce

Faster ways to exchange data in government

Cost-saving project helps 585 local authorities to interpret hundreds of directives on fair trading

Local and central government bodies in the UK are cutting administration costs by up to 80 per cent by using electronic data interchange (EDI) in a unique way to exchange information on trading standards, consumer protection and law enforcement.

The project, winner of the 1995 British Telecom Award for Innovation in Electronic Commerce, was set up after a government study identified huge volumes of information which was being printed by computer systems, sent to other organisations and then keyed into their systems.

The Local Authority Co-ordinating Body on Food and Trading Standards (Lacots), which oversees the project, has now developed standard EDI messages so that the information can be transmitted in set formats and extracted automatically by computer systems at the receiving-end for analysis.

Lacots helps the 585 local authorities to interpret the 70 Acts of Parliament and 200 European Union directives on fair trading to ensure consistency across the country.

It sends a fortnightly circular on recent decisions to enforcement officers and produces an annual index of advice given in different areas.

It also operates a database of the 50,000-plus convictions each year relating to heavy lorries, typically involving overloading. This is accessed by local authorities and other bodies.

Masses of information also passes between local authorities, the Ministry of Agriculture Fisheries and Food, the Office and Fair Trading and other central departments.

"Local authorities handle a million consumer complaints a year and have to send details to the Office of Fair Trading," says Lacots chief executive Jim Humble. "They have to send statistics on food inspections to the Ministry of Agriculture: this is a horrendous document running to 14 pages, with more than 200 boxes to complete on each page."

Previously such data was compiled by each local authority, then printed and sent to the central government department, where it was keyed in to another system for storage, analysis and consolidation, thus raising the risk of human error.

The Lacots project team found that much of the information in such reports was standard and could be arranged in messages following the international Edifact standard message structure for EDI.

A pilot project linking 12 local authorities, Lacots, the Ministry of Agriculture and the Office of Fair Trading and involving EDI software specialist Kewill-Xetal and British Telecom's data network last year proved so successful that it is being extended to 180 trading standard authorities by next month.

An experimental link has also been set up with local authorities in France, and the European Commission is showing interest as a body which gathers consolidated data from European Union members.

This rapid growth follows average savings of 78 per cent. These savings range from 60 per cent on the reporting of food inspections and testing to 80 per cent on exchanges of information with the road traffic convictions database.

In some cases error rates have been cut from 70 per cent to zero. The savings are mostly in staff costs – but the project has also brought important increases in reporting speed.

"If a hazard is discovered in a food or other item, Lacots or the department of Health notifies local authorities, perhaps by letter," Mr Humble says. "A standard EDI message speeds up that process considerably.

"In addition, if a local authority stops a lorry on suspicion of being overloaded, it needs fast access to the convictions register: again, EDI extracts the relevant information and gets it back quickly."

The enthusiastic response to the system by local authorities and central government departments is leading to expansion in other directions. The pilot involved the development of eight EDI messages – and 30 more have since been identified, plus nine electronic mail applications.

John Kavanagh

Advances in data storage

Continued from previous page

within five years from last year's February start date.

"The project is well-conceived and can have significant impact on the industry as a whole," predicts Dunstan. "The government have been somewhat enlightened in tackling the problem this way."

The drive will be compatible with the current PC Card standard for credit card-sized notebook and palmtop computer add-ons and will have to offer a high level of ruggedness and be able to operate in both hot and sub-zero weather conditions. Dunstan explains that although many observers see the existence of "healthy competition" in the technology sector as a strong driving factor in boosting research, it is not always the case – "in developing PC hard disk drives, you start with price and work backwards: that being the case, the battle you have to fight is making enough profit to be able to help push the technology forward," he says. Once, most companies followed a few large technology leaders, "but now individual companies have to promote new technologies out of their own pockets."

■ US Air Force contract

Record $1bn deal for 300,000 PCs

Personal computer suppliers will bend to the most demanding terms from buyers if the long-term deal is big enough

The benefits of bulk purchasing are obvious to any business. In the realm of information technology, large price tags for single contracts are usually associated with big systems that end-users will never see.

The US government has never acknowledged such limitations. Since 1983, when Desktop I was awarded, it has placed a series of enormous contracts for personal computers. The latest in this line is Desktop IV, a $1b deal covering more than 300,000 PCs.

With an order of this magnitude, Washington acquired substantial clout with equipment suppliers. The way the US government went about organising Desktop IV illustrates how an aggressive and uncompromising stance can pay off for the customer.

The entire Desktop IV procurement has been driven and managed by the US Air Force. But the USAF is not the sole customer – the contract covers PCs and associated peripherals for all other branches of the military, plus a segment, around 10 per cent, for use by the civil government.

Large savings

Appointing the technically experienced USAF to handle the contract immediately delivered savings in time and eliminated pointless duplication of government tendering.

The initial order for 300,000 PCs, worth $742m, was placed with Zenith Data Systems, the PC arm of the French IT manufacturer and systems house, Bull.

Government Technology Services also won the right to supply systems under Desktop IV, maintaining an element of competition after the deal was awarded.

A further 100,000 PCs were added to the order in 1995, propelling its overall value into the $1bn league. ZDS supplies 70 per cent of Desktop IV systems, but that proportion is not guaranteed. The USAF can choose to place more orders with the Virginia-based systems integrator GTSI.

For Tom Buchsbaum, ZDS executive vice president for government and education, the prestigious Desktop IV order presented a big challenge. ZDS was one of 23 companies tendering. The USAF expected the winning contractor to deliver 20,000 units two months from the first order – "we had to be ready to deliver on a dime," Buchsbaum recalls.

ZDS geared up for the order, and added more disk space than the USAF had requested. The thinking was that under the dual-award system, ZDS had to exceed the user's requirements. This set a trend, with ZDS quickly moving to machines based on 486 computer chips, despite a paper specification that only stipulated 386 chips. Pentium chips followed shortly.

The idea of using the military to sort out civil computer contracts is a fairly recent development, but it has kept a budget-conscious Congress happy.

The civil element of Desktop IV has risen to 20 per cent. Buchsbaum acknowledges that this procedure works in the taxpayer's favour – "the pricing is very low for the contractor, while the value is high for the user".

ZDS has passed the pressures of Desktop IV on to its own suppliers. They have to hit certain price points and must accept the risk that future contracts could be awarded outside of ZDS, leaving a hole in their production run. The reward for working inside this regime is commensurate with the risks. ZDS' subcontractors win the opportunity to participate in a very large piece of business.

A unique level of service is another gain from the scale of Desktop IV – "if a computer breaks down anywhere in the globe, we respond. You get that kind of support with that size of contract," says Buchsbaum.

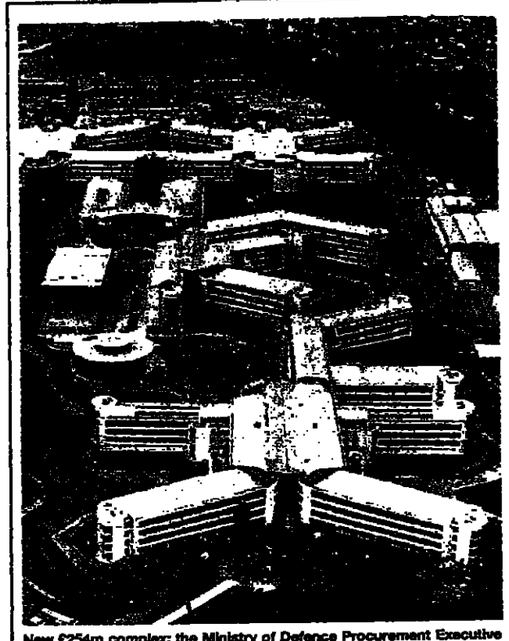
ZDS is currently putting together a service plan for US forces deployed in the former Yugoslavia.

The company has now won the right to supply PCs under three of the four Desktop contracts. It was left out of Desktop III. Buchsbaum admits that after gearing up to co-ordinate suppliers and deliver a large-scale contract a defeat can be galling – "we've experienced how painful that is."

That fact that ZDS bounced back after Desktop III underlines the fact that computer suppliers will bend to the most onerous terms if the long-term deal is big enough.

Buchsbaum may not feel so, but the USAF was probably right to exclude ZDS from one stage of this formidable deal. The US government is clearly not prepared to let even the most experienced IT contractors take anything for granted.

Michael Dempsey



New £254m complex: the Ministry of Defence Procurement Executive headquarters at Abbey Wood, north Bristol

Dawn of a new era at Abbey Wood

When the first of more than 4,400 staff in the UK's Ministry of Defence Procurement Executive moved from offices in London, Bath and the south coast to their £254m headquarters near Bristol, just before Christmas, their new IT and communications system was already fully operational.

The move to the 98-acre site at Abbey Wood is believed to be the largest-ever relocation undertaken by a UK government department. The move aims to save £100m a year by reducing manpower and operational costs. More than 4,400 staff will have transferred to the site from 15 other locations in the UK by the end of this year.

"It's rare to have an IT and communications system fully operational at the start of the occupation of a large building complex, but we've succeeded from day one," says Mr Bob Quick, head of IT infrastructure on the site.

Major Philip Kershaw-Naylor, project manager of DAWN – which stands for 'Delivering the Abbey Wood Network' – says that the system can technically support up to 5,000 computer terminals. It is based on Unisys workstations, using the Microsoft Windows NT operating system.

EDS, the IT solutions group, won the contract to provide the Microsoft Office system. Digital Equipment Corporation are the IT system integrators, providing Microsoft Exchange software with e-mail and scheduling facilities – all part of the "technology refreshment programme" at Abbey Wood, the largest single-site office complex in northern Europe.

The Procurement Executive buys £7bn worth of equipment and spares for the armed services each year – items ranging from submarines and fighter aircraft to radios and field kitchens. More than 5,000 contracts are placed each year, with 10,000 active at any one time.

The IT installation at Abbey Wood provides "the most cost-effective system, using commercial off-the-shelf products while meeting all the Ministry of Defence requirements," says Mr Quick.

Dr Malcolm McIntosh, chief of defence procurement, working on his DAWN terminal at Abbey Wood

In advance of the first move to Abbey Wood, 2,000 MoD staff around the UK were given "a glimmer of the DAWN project" at IT presentations around the UK.

Four video-conference suites are being installed, with facilities to connect them to other Ministry of Defence sites.

Michael Wiltshire

■ Weather and oceanographic forecasting system

By Michael Dempsey

Improved access to crucial data

Royal Navy's advanced meteorological system brings big operational benefits

The London suburb of Northwood is home to a heavily-guarded bunker that houses the operational headquarters of the Royal Navy. From April, a new combined services command will be based there, running overseas deployments such as the British force in Bosnia.

Northwood is also a hub for maritime weather forecasts, housing the Fleet Weather and Oceanographic Centre, known with the military affection for unlovely acronyms as FWOC.

FWOC relies on raw data from the UK Meteorological Office. But until very recently this information was processed on the Fleet Met Computer, a system based around assorted technologies up to 20 years old.

A purpose-built suite of software called Ocidas processed oceanographic data. This material is critical to a modern navy. Surface vessels and submarines find their targets by sonar and a variety of other sensors. Water temperature at different depths effects the performance of these systems and can dictate the capabilities of naval weapons.

Pressures

On top of these two sources, FWOC also operates remote sensing equipment, based on satellites. Unfortunately, these three sources of data were unable to communicate with each other electronically and were demanding in terms of support and manpower.

The latter resource is under intense pressure in the Royal Navy, which has seen significant cutbacks in recent years. FWOC needed a total overhaul, but the result had to be accommodated within a tight defence budget in an era of increasing scrutiny of military spending.

The Navy's answer was to update FWOC using an outside supplier on a fixed-price contract. The US outsourcing giant, EDS, found itself shortlisted opposite UK systems house Data Sciences.

Lt Cmdr Gary Howells, a Navy oceanographer and computer systems manager, recalls the final selection process: "We produced a marking scheme, ticking off points that mattered to us. But cost was also very important. If you choose the more expensive contractor in these circumstances, you've got to have a good reason for it."

Data Sciences undercut EDS on price and was awarded the £2.4m contract. Both shortlisted candidates had employed former naval officers to advise on their bids. In the case of Data Sciences, an Aberdeen-based consultancy, Ocean Routes, was called in. This company supplies weather information to commercial clients – getting to grips with the world of naval meteorology was essential if Data Sciences was going to deliver a working solution within budget. Paul Venn, a new business manager at Data Sciences, recalls how he kept in touch with the users' perspective – "we understood their domain. We arranged detailed technical workshops that allowed the users to air their views".

Mr Venn admits that in some technical areas Data Sciences was out of its depth – "some communications problems were beyond the scope of our participation. These were handled by the Ministry of Defence itself."

HMS Sheffield – one of the Royal Navy's warships which benefit from the new FWOC meteorological forecasting system

With 35 per cent of its £120m turnover generated by Defence Ministry business, Data Sciences could be expected to know this client well. But Mr Venn believes that the secret to his company's popularity in defence circles lies in "knowing its own limitations ... you have to focus on particular areas, rather than spreading your abilities too thinly.

"We are probably the UK experts in datalinks and we *do* understand secure communications very well."

Data Sciences succeeded in transporting Ocidas on to Hewlett-Packard workstations and tied to the Horace meteorological software package – "to be able to use data from both systems together is no mean feat," Mr Venn says. "It's a big and complex system."

The challenge was to keep costs down by using standard commercial hardware and some off-the-shelf software while integrating two very different large programs, tailor-made for the UK government, Horace and Ocidas.

Lt Cmdr Howells notes that the Navy had originally planned to hedge its bets, running the old FWOC system in parallel with the new arrangement for several months. This insurance would keep vital data flowing in case the Data Sciences solution slipped up.

The new FWOC went live on December 23 1995: this date itself indicates confidence in the system. Howells says "the inauguration didn't ruin anyone's Christmas, and with the imminent arrival of the joint services HQ at Northwood, it was decided to accelerate the implementation. We decided to go for a Big Bang approach. We only kept the old hardware running for two or three weeks. We had enough belief that it was going to happen."

The former FWOC equipment has now followed the fate of discarded warships and is being broken up for scrap. The Royal Navy has improved access to weather data from interlinked sources, and Northwood can operate FWOC with 20 per cent less staff.

■ Mapping the oceans

By Geoffrey Wheelwright

Valuable aid to navigation

Project is 'a model of co-operation between governments and industry'

A joint research development effort by the Canadian arm of database experts Oracle Corporation and the Canadian Hydrographic Service (CHS) has yielded technology that will allow geographical and spacial data to easily be incorporated into large databases.

Incorporated as a product known as Oracle 7 MultiDimension, released in June of last year, the technology is something of a breakthrough for anyone working with geographic information systems. The spatial data that it can hold in its database is defined by multiple dimensions – including latitude, longitude and elevation – and typically describes the geographic characteristics of a particular area or object. In many cases, it could eliminate the need for costly, bespoke databases to meet this need.

Oracle estimates the business opportunities created by this opportunity to be in excess of $10bn, as corporations in a wide variety of industries start to incorporate it into industry-standard Oracle databases. Oracle predicts particular interest from the financial services, healthcare, pharmaceutical, insurance and consumer goods sectors.

The work of CHS (under the auspices of the Canadian Department of Fisheries and Oceans) in working with Oracle to help development this technology, drew praise from the Canadian government, whose then-minister of fisheries and oceans Brian Tobin called it a "model of co-operation between governments and industry" for the benefit of those involved. CHS employees are credited with making the technical breakthrough that makes possible the management of spacial databases.

"The Canadian Hydrographic Service received $2.12m of software and support, Quebec got a new industrial laboratory and Oracle Canada got a new product to market worldwide," said Tobin. "This software adds significantly to Canada's high-technology expertise and to our international competitiveness in this field."

According to Tim Evangelatos, chief of database research for the CHS, there is already a large pent-up demand for this technology.

"From the demand we've already seen, we are certain that this technology – originally developed for CHS in Oracle's Canadian Development Center – will ultimately have a far-reaching impact on how geo-spatial information is managed throughout the world," he says.

In addition, CHS says the benefits of combining database and hydrographic mapping technologies "do really produce something more than the sum of their parts".

"Oracle7 MultiDimension allows us to get the best of two worlds," says Steve MacPhee, director general of the Canadian Hydrographic Service. "Now we can take full advantage of RDBMS technology benefits, such as guaranteed data integrity, with the ability to efficiently store and access the spatial data our government uses to manage Canada's inland and coastal waters for the fishing and maritime industries."

Oracle sees wide potential application for the technology. An insurance company, for example, might use it to calculate the potential liability to its policy holders of a large-scale flood by plotting the location of their homes relative to the flood plain of a river – while a supermarket chain might use it to analyse buying-patterns according to a highly-defined set of demographic and geographic information and then use the results to carry out promotions organised by city, town and neighbourhood.

New services

In the UK, meanwhile, the Admiralty's Hydrographic Office (HO) has been working with EDS, the IT services provider, on two pilot projects due to be completed this spring, aimed at enabling it to develop and issue charts of the world's oceans and 'Notices to Mariners' more efficiently and cost-effectively than before – while giving seafarers an even more up-to-the-minute picture of the oceans.

In addition, the systems will hopefully enable the Hydrographic Office to develop new products through the development of a database.

The first system, named Genesis, will enable operators to automate the previously manual process of assessing source documents – including text, photographs, digital survey data, Royal Naval and commercial surveys and foreign government charts. The second system, named Isaac, will hold hydrographic charts on-line, so that operators can manipulate and draw information from Genesis and quickly make updates to the charts.

The Hydrographic Office is an Agency within the British Ministry of Defence. Its primary role is to meet national hydrographic responsibilities and to provide the hydrographic products and services which users need to go about their business at sea safely and effectively.

Worldwide navigational cover is provided by a compact series of approximately 3,300 British Admiralty (BA) charts and associated navigational publications. Charts are continuously up-to-dated; in addition to new publications there are 200 revised editions and 4,500 corrections (Notices to Mariners) each year.

According to Dr Chris Drinkwater, information systems director at the Hydrographic Office, this new system should change the way his agency works – "for many years, computer-based systems have been used to good effect. Introducing the very latest technology into all aspects of chart production, from data assessment to product preparation, brings the potential for significant operating efficiencies, permits more rapid assessment and dissemination of information."

Paper and digital products can also be produced from the same database.

The overall effect will be a more efficient organisation, better meeting the needs of the mariner, "so ensuring that the office continues to play a leading role in supporting safety of navigation."

■ Telemedicine

By Geoffrey Wheelwright

Boon for rural areas

Computer technology and high-speed network links are changing the face of medical services in rural communities

The emerging science of 'telemedicine' – using systems that combine personal computers, video-conferencing and high-speed data transmission – is now playing an important role in many small North American towns and lonely, country outposts.

Telemedicine uses techniques such as video-conferencing as well as patient and diagnostic information exchange via high-speed computer links to bring the expertise of large urban hospitals to bear on the medical problems of patients in outlying areas, without having to move the patients or send specialised doctors into the field. In the American state of Montana, for example, US West, a telecommunications service provider, has been testing one telemedicine solution for the past two-and-a-half years.

A telemedicine pilot project, known as the Eastern Montana Telemedicine Network (EMTN), has been running since September 1993. It is designed primarily to give rural patients access to physicians, and rural physicians access to specialists. An important secondary goal was ongoing education for healthcare professionals and staff. It involves US West and five medical centres whose provider area covers 37,000 sq miles – with a population density of less than two people per sq mile.

The "hub" of the project (to which remote medical facilities can dial in) is at the Deaconess Medical Center in Billings, Montana. Rural users are medical and mental health care facilities in the eastern Montana communities of Culbertson, Sidney, Glendive and Miles City.

US West provides dedicated high-speed networking facilities to each site, connected in a daisy-chain fashion, with access to a 384 Kbps channel for video and another 384 Kbps channel for data. The system makes simultaneous video conferences possible – or allows for the transmission of data during a video conference.

Each site has installed a personal computer-based VTEL media conferencing system with two 27-inch monitors – as well as a camera that pans, tilts and zooms, and a document stand that allows the system to display anything from patient records and x-rays to three-dimensional objects.

US West says the system can be connected to any medical devices that use a standard video output – meaning that pathology slides, endoscopy videos, echocardiograms, electrocardiograms and a variety of other medical imaging can all be transmitted – allowing the more advanced facilities at the urban hub medical centre to do the analysis of the patient's test results.

The system also allows for multi-point video and audio conferencing (so that groups of doctors and specialists can confer about a case), and for what is called "time conferencing", which functions like a video version of e-mail. On a point-to-point basis, computer conferencing is also available, so that users at two different locations can work simultaneously on a document.

> Telemedicine reduces the isolation of rural medical practice

Mr Jim Reid, former director of the EMTN who is now an independent telemedicine consultant with Billings-based Innovative Medical Communications, says that the system has taken some getting used to – "over 50 per cent of the patients surveyed said it wasn't the same as being there in person. But 100 per cent said they would prefer telemedicine to travel."

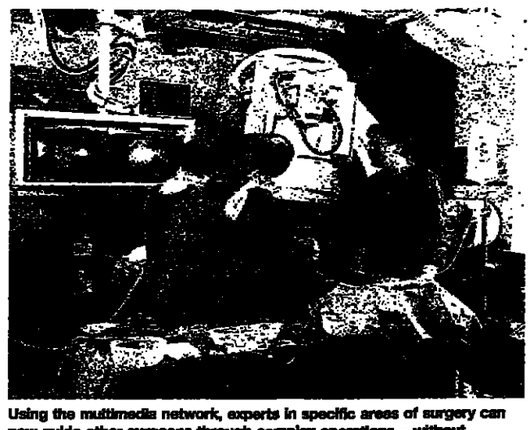
Meanwhile, another set of telemedicine trials are under way involving facilities on the west coast of the US. The University of Washington has linked doctors in Ronan, Montana; Petersburg, Alaska; Driggs, Idaho and Colville, Washington so that they now have electronic access via interactive computer video to some of the top specialists in the main urban centre of Seattle, Washington.

Hospitals and clinics in each of these towns are part of this telemedicine project with the university, which is designed to evaluate the potential benefit of telemedicine consultations in the delivery of rural medical care. A grant from the Office of Rural Health Policy of the US Department of Human and Health Services funds the three-year project.

Medical consultations take place in locations equipped with desk-top computers and special devices to transmit live video and other images, such as x-rays and high resolution photographs. For example, a rural physician can circle a worrisome spot on an x-ray appearing on his or her computer screen and the circle will appear immediately on the same image on the University of Washington physician's screen in Seattle. The physicians can then see and talk with each other and the patient.

This project is designed to use the least expensive and least complicated technology possible to assure that the technology remains affordable for rural medical facilities. According to organisers, each telemedicine station costs approximately $13,000 for a basic set-up – with additional costs for extra accessories such as a film scanner and other special medical devices.

Another aim is that the system will provide support for rural physicians who often experience professional isolation, which leads to a high staff turnover in remote areas. But knowing that a consulting specialist is just a phone call away may be the type of support doctors alone in a rural practice need. According to Dr Thomas Norris, principal investigator for the University of Washington telemedicine project, it could make a big difference for doctors and patients – "isolation is the enemy in rural practice. We hope telemedicine can help alleviate it."



Using the multimedia network, experts in specific areas of surgery can now guide other surgeons through complex operations – without needing to be present in the operating theatre

■ High-speed healthcare network

Multimedia saves lives

Philip Manchester reports on the progress of SuperJanet

Leading-edge networking technology is taking UK healthcare into the 21st century. The SuperJanet network, first set up in 1993, provides high-speed multimedia networking to medical researchers and practitioners across Britain.

Funded by the Universities' Funding Council, SuperJanet evolved from the Joint Academic Network (Janet) which operated on an earlier generation of networking technology.

SuperJanet uses a high-speed networking technology called asynchronous transfer mode (ATM) to provide the bandwidth capacity needed for multimedia applications, such as video-conferencing. The network runs on leased lines from BT using ATM switching hardware from General DataComm.

SuperJanet allows, for example, students to watch skilled surgeons perform 'live' operations over the network. Students and researchers can also use the network for video-conferencing and to view rare manuscripts and academic papers held in university libraries, via a desktop computer. "The important thing about ATM is that it gives you the ability to run a multi-service network. It's essential for the sort of application we are running because you have to be able to separate traffic," says Mr John Dyer, technology manager at the UK Education and Research Networking Association (UKERNA).

"We now have 15 sites connected to SuperJanet which can all participate in both data and video services. The video service is full motion, full frame – which is important so we can get the image quality." Six of the sites are regularly involved in the most ambitious aspect of the service which gives students access to surgical teaching. Standard audio visual equipment in operating theatres feeds through to a coder/decoder (codec) connected to the ATM network. There are plans to use SuperJanet as a way of allowing consultants to advise on surgery remotely. An expert in a specific area of surgery could, for example, guide a surgeon through a difficult operation without needing to

Continued on facing page:

■ Injury claims processing

By John Wassell

Danish trailblazers

New case records system eradicates paperwork delays

Denmark's Industrial Injuries Board receives 330,000 letters a year – yet it is aiming to become a paperless office by 1997.

This project will include document imaging, work-flow systems and electronic data interchange and allow staff to work from home. At the same time it will enable staff to take greater responsibility for cases, increasing their job satisfaction.

The Industrial Injuries Board, an agency of the Ministry of Social Affairs, handles compensation for industrial accidents, work-related illnesses and victims of Nazi occupation from 1940-45. It also advises courts in private insurance cases.

The statistics surrounding the board's activities make the paperless office seem an impossible dream. Its 300 staff get 46,000 new cases a year, receive 1,300 letters a day and send out around 1,500 – amounting to at least 375,000 a year.

The board took a big yet relatively simple step in 1992 by linking its chosen word processing software, Wordperfect, to its case records system.

This has cut the separate keying of the same information into two systems.

"The letters always contain information which is found in the case system, such as names and addresses, details of employers and insurance companies and information on injury dates and diagnoses," says Anne Madsen, the board's deputy director-general.

"Writing, compensation calculation and recording are now done in a single, automatic process.

"The case worker enters the file number and the code of the standard letter to be sent. An individual comment can be added to the letter if necessary. The system prints the letter and updates the case information: for example if the letter is to inform someone of a decision, the case record will be updated with the type of decision.

"If the decision is to award compensation, the system calculates the amount, inserts it in the letter and, again, updates the case record.

"All this means it is easy to get a quick overview of an entire case, including all the outgoing correspondence, through a single enquiry."

The system links overnight to the national citizens register to update the central records with any changes of address.

This 1992 development has already had considerable impact. In effect all the tasks which have now been automated were previously done by separate teams: there were staff entering data to the case records system, others word processing letters and a third group handling calculations, in addition to the professional case workers.

Automation cut the need for staff but instead of making half of them redundant the board chose to retrain them to take more responsibility and to improve service.

Anne Madsen: her staff send out 375,000 letters a year

"We work under contract to the Ministry of Social Affairs and part of the contract is to constantly seek to improve quality," Mrs Madsen says. "We have surveyed 2,500 direct clients and 300 organisations, such as unions and insurance companies, on their expectations and have set performance targets. For example, letters acknowledging receipt of a claim are sent within five days.

"Technology plays a part here, too: for example we produce weekly information on the numbers and quality of cases processed."

The board is now moving toward a paperless office by introducing still more technology. It is working with computer company Unisys on several projects at once.

One key aim is to stop physically handling 'masses' of letters. A pilot project is under way here on document imaging to store incoming letters as images. Letters are barcoded with reference details for automatic storage to and retrieval from the correct case files.

An associated work flow project has been set up to identify further efficiency measures and changes to procedures. These projects are based on Unisys Unix computers and a Novell PC network.

The board is also looking at extending these systems to people's homes to support teleworking. This would not be every day but would enable staff to work from home for two or three days a week if they wished.

Meanwhile, telecommunication is being extended to the outside world, typically through electronic data interchange (EDI): the automated exchange of documents in standard formats between computers.

This is generally associated with the transfer of orders and invoices between companies but it is also used for exchanges between public bodies. The board is using it to communicate with hospitals, insurance companies and local authorities to request and receive standard information.

As the document imaging project progresses it will also send images of past correspondence to insurance companies electronically.

Electronic communication could even be extended to individuals: Mrs Madsen points out that well over 60 per cent of homes in Denmark have PCs.

All these developments are in line with the Danish government's Information Society 2000 project, which grew out of a 1994 study commissioned by the relatively new Ministry for Research and IT.

"We want to be trailblazers in the Information Society 2000 project – and we intend to reach our paperless office target by 1997," says Mrs Madsen.

■ Whitehall offices

By George Parker

Shape of things to come

Let's join the IT revolution, says minister

When Mr Roger Freeman, Britain's public services minister, toured a government IT exhibition last month he was most impressed with what he saw. Well, *almost* everything.

The minister was treated to a demonstration of what a Whitehall office would look like in the year 2000, and watched in rapt attention as the new technology was put through its paces.

The fictitious minister's office was replete with voice-controlled computers and video-conferencing facilities, offering him instant access to information and staff. The only problem was that the "minister" was a *Labour* minister.

That slight hiccup apart, Mr Freeman liked the look of the Whitehall office of 2000. In fact, he declared that the same facilities could be available to ministers now, if there was not so much suspicion of new technology within the civil service.

"It is a revolution and it's already happening in the private sector," he said. "We have got to catch up to become more efficient.

"We are a conservative nation with an excellent civil service, and we make changes very slowly. We have to face the reality that we are going to be engulfed by paperwork very soon: we must use modern technology if we are to govern properly."

Mr Freeman insisted that the technological revolution in Whitehall was not being held back by a shortage of cash. Ministers believe the installation of hardware such as video-conferencing equipment could be installed under the private finance initiative.

"This revolution is with us now," he said. "There's no reason why we shouldn't introduce these new technologies immediately. There is no resource constraint – it is people that are the constraint."

It was to sidestep civil service resistance to new technology that Mr Freeman and his boss – the deputy prime minister Mr Michael Heseltine

Roger Freeman: 'We must use modern technology if we are to govern properly'

– decided to set up a new Cabinet Office information technology unit.

CITU, as it is known, will comprise a mix of hand-picked civil servants and staff seconded from industry, who will draw up a complete Whitehall computer strategy and implement it with the aid of the private sector.

"It will be a professional team: we have got to let the private sector drive the system and introduce the hardware," he said. He did not believe the further introduction of IT would have "redundancy implications" for the civil service.

The Whitehall 2000 display, at the Institution of Civil Engineers, was put on by the government's CCTA computer agency.

Mr Freeman watched to see how new technology could help a minister cope with the political aftermath of a simulated oil tanker disaster, in the year 2000.

The exercise portrayed the minister visiting the scene of the spill, and receiving instant and detailed briefings via computer and video link with his private office.

The minister's private secretary "George" used his voice-activated computer to call up details of the wrecked tanker and previous government policies on shipping safety.

The private office was also able to supply detailed responses to anticipated media questions, as well as to provide biographical details on a troublesome opposition – Conservative – MP.

"The Whitehall 2000 project could have a significant effect on the way government operates in the next millennium," Mr Freeman said. "This project positions the UK as the world leader in harnessing the power of new technologies to enhance government."

Mr Mark Gladwyn, head of strategic programmes at CCTA, said: "The technologies used in Whitehall 2000 are simple to operate and will enable ministers and business leaders to participate fully in a global economy."

■ Computer services in Whitehall

By George Black

Relief over agency's future

The news that the CCTA will become an executive agency is a relief to its management and customers

Worries that Whitehall's main computer services agency, the CCTA – originally the Central Computer and Telecommunications Agency – might be privatised or abolished were dispelled last month when the government announced that the CCTA would not be sold but stay in the public sector as an executive agency.

The agency, with a staff of 290, helps departments decide on the kinds of computer services they should buy and advises them on issues such as data protection. Ministers took the view that it would be difficult to privatise a body whose main task is the provision of high-quality service to Whitehall departments.

CCTA staff are at present civil servants within the Cabinet Office's Office of Public Service; as an executive agency from April 1 they will remain within the OPS, but operate on a full cost-recovery basis.

The CCTA's director Roy Dibble, who is due to move to the Foreign Office in February, had said that privatisation could prevent the CCTA from continuing to perform its role of undertaking independent work on behalf of its customers. However, becoming an agency would only compel it to prepare its accounts differently, which could quite easily be done, he said, and would therefore be likely to be less disruptive.

Mr Dibble said it was a great relief that the CCTA would not be privatised and "we're extremley pleased," but, he added, there were negative aspects: "Full cost-recovery will not be easy and there will be slimming down ... we have to convince customers that it's worth paying for our services."

The creation of the Central Information Technology Unit (CITU) last November at the instigation of Mr Michael Heseltine, deputy prime minister, with a remit to make a strategic review of government's use of IT, raised the question of how it would relate to the CCTA. The January 31 announcement stated that the two would "work in close co-operation."

The mission of the CCTA, "to help the public services successfully acquire and use the information systems to meet their business needs," has not changed greatly in many years. But what that task involves and how the CCTA should go about it have always been controversial issues and its responses to the challenge have been continuously changing.

One big upheaval came in the 1970s when the buy-British policy was abandoned and the then-British ICL ceased to be the CCTA's preferred supplier. Another came in 1984 when departments were freed to use alternative channels of procurement.

Since then, the CCTA has been steadily commercialised. The proportion of work which it undertakes free of charge for the common good of its customers – now around 50 government departments and 100 agencies – has fallen sharply.

It is down to 20-25 per cent and Mr Dibble said that the current objective, urged by the Treasury, was to reduce it to 10 per cent.

Government departments might not like being asked to pay for services which they had previously had for free, he noted, adding that this was a matter for ministers, not civil servants, to decide.

The organisation has shrunk, partly because outsourcing of information systems by departments and agencies has reduced the CCTA's advisory role, partly because those customers have strengthened their own internal expertise.

> The CCTA has become far more selective about the services it offers

Two and a half years ago, the CCTA had 400 staff; now it has 290, most of them based at Norwich. But it has to provide support services for a total public sector procurement of systems valued at £2.3bn a year, a figure which is up from £1.7bn five years ago and still rising.

Last year, the CCTA was directly involved in arranging £559m worth of procurement contracts and £400m worth of market testing and outsourcing contracts.

The pressure to support a larger and more complex procurement operation with fewer people has meant that the CCTA has had to be much more selective about what types of service it can offer.

It has spun off some products, such as the methodologies for systems analysis, project management and risk management, respectively known as SSADM, Prince and Cramm, as well as its infrastructure library, into autonomous companies.

It has retreated from standards-setting, reducing its representation on national and international committees and withdrawing from the almost impossible job of instructing the public sector on which technical standards to follow.

Of the remaining activities, guidance on best practice in procurement of computer and telecoms sytems, support for market testing, outsourcing and the Private Finance Initiative, and research into emerging technologies are – until April – still free of charge.

Bulk purchasing of systems as well as consultancy services have to be paid for.

The CCTA also publishes around 50 books, reports and briefing papers a year on technical subjects, which are sold through Her Majesty's Stationery Office (HMSO) to both public and private sector customers in the UK and overseas.

The research focuses on currently hot topics such as government's use of the Internet and information superhighways of the future, smart cards and identity cards, groupware and electronic commerce.

The potential impact of a change of status on up to now free services such as guidance and research has worried the CCTA's customers.

They see the CCTA's experience of government systems accumulated over 25 years as a unique source of assistance and a catalyst for their technological development.

Mr Michael Heseltine, deputy prime minister, has the remit to make a strategic review of government's use of IT

Last year the government canvassed the views of the CCTA and its customers on what its future should be. Some departmental heads of information systems responded that the loss of independence would be a serious matter both for them and for the CCTA. A private company would always have a vested interest when it gave advice, it was argued.

Colin Muid, head of central information systems at the Home Office, was one who took this view.

He said that the Home Office made moderate but important use of the CCTA's services, especially for advice on complex issues about the novel use of technology.

"The CCTA has been one, two or even three steps ahead of the rest of us most of the time," he said.

It was also valuable for a department to be able to tell the National Audit Office and the Public Accounts Committee that it had received the best possible advice before embarking on a major project.

■ Electronic trading at HMSO

By John Kavanagh

Cash flow speeds up

How Britain's biggest publisher handles 400,000 orders a year

It takes eight minutes on average for a member of staff at Her Majesty's Stationery Office (HMSO) to deal with an order for publications, stationery or office equipment. Yet half the orders are worth less than £10, and 90 per cent total less than £100. The organisation receives over 400,000 orders a year, with a total of more than 3m order lines.

These figures spurred HMSO into electronic trading – and its early experience has proved so beneficial that it is expanding into some pioneering applications.

HMSO is the biggest publisher in the UK, the biggest printer and the third biggest stationery supplier. It has a turnover of £360m and 2,900 staff.

HMSO supplies stationery, publications and office equipment to the public sector and also sells publications to the private sector.

Pressure to start electronic trading was really felt at the end of the 1980s, when it began working at arm's length from the government as an agency.

"We no longer had public sector business by right or decree: we were now only as good as our product price and service," says electronic data interchange (EDI) manager, Mr Terry McCrum.

"We had a reputation for good quality products at competitive prices but we were seen as remote and bureaucratic, and our service was perceived as slow. Customers were changing with the advent of devolved budgets and ordering and the recruitment of better qualified and professional purchasers.

"In addition, our big customers were moving towards EDI."

Like many organisations, HMSO started in electronic trading by receiving orders using a standard EDI message into a PC, via the GE Information Services Tradanet network. The messages were printed and the information was then keyed into the order processing system.

That was six years ago. Today, HMSO has set up a more efficient system based on GE's Ediswitch software, which receives EDI messages, extracts the necessary data and passes it automatically to the appropriate business systems.

Orders now come from three electronic sources, including EDI. An on-line catalogue can be accessed from a PC by linking over a telephone line to a Unix computer in Norwich. Customers can place orders through this machine, which sends them to the Ediswitch system. The on-line catalogue is now used by more than 200 customers.

HMSO has also just started supplying its catalogue on floppy disc to government departments. Customers can browse it and set up orders on a PC and then send them over the Government Data Network, again to the central Ediswitch system.

In all cases, the Ediswitch software extracts the relevant data and passes it to the order processing system.

Electronic trading now accounts for £42m of orders, or 12 per cent of HMSO's total. This figure has grown ten-fold in four years.

As well as receiving orders via EDI, HMSO now sends back invoices and also sends orders to its own suppliers: around a quarter of its own orders are sent in this way, to 130 suppliers.

"We've cut our lead times dramatically – by five days on average," Mr McCrum says. "This has enabled us to gain and retain business. For example, we have just won a contract from the National Health Service which demands that orders received up to 2pm are delivered the same evening.

"We have increased accuracy from the reduced keying of information. Previously, 10 per cent of keyed documents needed attention to sort out errors; now it's less than one per cent.

"Sending invoices by EDI has improved cash flow, because customers receive them promptly and we get paid more quickly."

Further EDI messages are being added, bringing increasing benefits – "we are starting to receive order response messages from our suppliers," Mr McCrum says. "These give early notification if a supplier can't meet an order, so we can decide immediately to use another supplier and can quickly inform the customer.

"The despatch advice message will enable us to prepare storage space for big orders and plan to unload the lorries. We can also keep customers informed about their orders. If the supplier is delivering direct to our customer, the despatch advice can trigger the transmission of our invoice, to arrive just after the goods.

"We can make real savings by receiving invoices electronically. We get 200,000 invoices a year and have a small army of people keying them in and matching them to orders, because 25 per cent do match automatically.

"Suppliers will also send their product information directly to our on-line catalogue for automatic updating, again eliminating keying.

"All these steps ensure that we have better accuracy and efficiency and better relationships with customers and suppliers: EDI has facilitated the re-shaping of internal business processes."

HMSO expects these relationships to develop still further. It is looking into paying by EDI, sending instructions electronically to the bank, which would arrange payments and send remittance advice messages to the recipients.

"We normally pay within 30 days, but if we can reduce the payment cycle and pay earlier we can again promote a better relationship with suppliers and negotiate discounts," Mr McCrum says.

Other possibilities include setting up automatic readers for entering the 30 per cent of orders that come in by fax and currently have to be keyed-in.

HMSO is also exploring the Internet, possibly to make its catalogue widely available, perhaps setting up PCs in HMSO shops to provide access.

Finally, after six years of progress from a humble start in EDI, HMSO is aiming at the ultimate in electronic trading: not holding any products at all.

One aim here is to get suppliers to hold stock themselves, to cut HMSO's own £m product inventory. A first step will be to send sales data and forecasts to suppliers via EDI. Allied to this will be self-billing by the HMSO: it will calculate suppliers' invoices itself and pay them.

Multimedia medical network proves its worth

Continued from facing page:

be present in the operating theatre. SuperJanet can also be used for multi-way technical meetings – "the network is extremely useful for this and we have had up to 11 sites participating in a multi-way video-conference."

Access to electronic documents is another area where SuperJanet has proved its worth. Experiments have been carried out where the text of academic journals was distributed over the network: "The John Rylands Library in Manchester has made material available electronically and there has been an enormous amount of interest in this."

The performance of the network has lived up to expectations – although Mr Dyer says there are still improvements that could be made: "The limitations of ATM at the moment are not to do with throughput or reliability, they are related to reduced functionality and the lack of standards. Suppliers are reluctant to commit to standards in the area of switched virtual networks which is something we need. You can get proprietary solutions – but we want standards-based technology."

Meanwhile, SuperJanet has proved that ATM can deliver on its promise of full multimedia networking and this augurs well for the future of the technology.

■ Alliances on the Information Superhighway

By Geoffrey Wheelwright

Connecting the classrooms

US government acts as a catalyst to achieve private sector partnerships in education

A great deal has been written about the potential advantages for individuals and industry of teleworking – or telecommuting, as it is known in North America – but the US government is also pushing the benefits of this technology as applied to education.

From US president Bill Clinton on down, there is a massive push to create a national network of "connected classrooms" that can gain the benefits of the vast pool of educational resources on, for example, the Internet – in the same way connected individuals who are telecommuting can have access to these resources for business while they are working from home.

More than 9m Americans already use computers and modems to work from home and the number is rising fast.

President Clinton, in a speech in San Francisco, laid the groundwork for new educational benefits: "I issue a challenge to America to see to it that every classroom in our country is connected to the Information Superhighway.

"By the end of this school year, every school in California – 12,000 of them – will have access to the Internet and its vast world of knowledge. By the end of this school year, fully 20 per cent of California's classrooms – kindergartens, elementary, middle and high schools, from one end of this state to the other – will be connected for computers.

"If that can be done in California, we can do it in the rest of America."

He emphasised, however, that the key was partnership – "the job of connecting California schools will be undertaken by a wide alliance of private sector companies, among them: Sun Microsystems, Xerox Parc, Apple, Oracle, 3Com, Silicon Graphics, Applied Materials, TCI and Cisco Systems. "Our administration has brought these companies together, we have set goals, but they are doing the rest," explained the president.

"Just as the connecting of our classrooms is a model for the 21st century, so is the way we are doing it here today – with government as a catalyst, not a blank cheque."

The president challenged business, industry and local government throughout the US to make a commitment of time and resources "so that by the year 2000, every classroom in America will be connected."

While the partnership between industry and government was important, educational reports revealed that "children with access to computers learn faster and learn better. Children mastered basic skills in 30 per cent less time than would normally have been the case. Also, they *stayed* in school – absenteeism dropped from over 8 per cent to under 5 per cent."

> High-tech goals will not be achieved by the government alone, says President Clinton

Clinton suggested that corporate America should look to work such as that done by Sun Microsystems, with its projects last year to organise a coalition of companies and volunteering in 'Net Day' – an effort to install networks in at least 2,000 schools.

"The number is growing with each new company joining the effort. In the morning, volunteers arrive at each school. By noon they have wired the library, the labs, the classrooms. By nightfall, those schools have the technology they deserve," he added.

The president also cited the example of Smart Valley, a coalition of Silicon Valley companies that has contributed $15m to putting technology in schools and is committed to developing 500 model technology schools over the next 18 months.

Finally, he pointed to the work of the on-line services and telecom service-providers as an example of how industry is helping to advance these government goals.

"America Online has offered Internet services for a year; AT&T is providing Internet access and voice-mail to all California schools," he said.

"Sprint is helping to connect the schools; MCI is providing software for entry into the Internet and helping to connect the schools.

"And Pacific Bell, which has led the way in linking California schools, is accelerating its efforts by hooking them up to high-speed phone lines."

Clinton summed up the US government's strategy with a few "guiding principles" that he said were central to the effort. These are "modern computers in every classroom, accessible to every student from kindergarten through 12th grade, networks that connect students to other students, schools to other schools, and both to the world outside.

"Educational software that is worthy of our children and their best aspirations and, finally, teachers with the training and the assistance they need to make the most of these new technologies," he said.

But the goal would not be achieved by government alone – "it can only be met the way these companies are doing it with communities, businesses, governments, teachers, parents and students all joining together – a high tech barn-raising."

■ National Geospatial Database

By Max Glaskin

The ultimate map project

A centralised geographic data base offers valuable services to planners

If anything can help a stranger in Britain to explore an undulating landscape, it is an Ordnance Survey map. So it is appropriate that the OS organisation should be suggesting a route for central and local government to follow in order to make their terabytes of data more valuable.

The OS believes that if the thousands of data sets collected over the decades by government departments, agencies and local authorities abided by the same criteria then they could dove-tail together and add up to more than the sum of their parts. It is not surprising that the OS believes the criteria should be geographic.

Most of the information collected by governments about that which they govern has some geographical base: from bus shelter permits, to set-aside rebates to radioactive incidents, the data has been recorded with a location element.

That element has been defined by different data gatherers so often it is not easy to marry them. For example, a house and street name is not the same as a National Grid reference so it becomes hard to use two data sets together.

The OS is promoting the need for a National Geospatial Database (NGD) in which all the different data sets have geographical descriptors in a standardised format. The prize from such data linkage is better quality data through identification of data inconsistencies – and the generation of added value.

Perhaps the most dramatic example of the effective use of such integration was the database built by the task force led by the US Geological Survey following the 1993 flood disaster in the Upper Mississippi river basin.

This brought together data from several government agencies and played a leading part in the management of the situation. Indeed, it led directly to the Clinton Executive Order mobilising the National Spatial Data Infrastructure.

The establishment of a national database is specified in the OS Executive Agency Framework Document and it is working with several players, including the Land Registry, the Local Government Management Board and the Inter-departmental Group on Geographical Information to bring it about.

Whenever any organisation begins to accumulate information, fears of Big Brother grow, but the OS is quick to scupper them.

"The NGD is not seen as a single, all-embracing collection of data sets held in one massive computer system. It is seen as being a 'virtual database'. It will comprise the totality of many individual geographical data sets collected and held separately by many different organisations," said Bryan Nanson, director of information management, Neil Smith, chief science advisor and Alison Davey, of the NGD programme, when they presented their case at the recent Association of Geographic Information national conference.

> Fears of 'Big Brother' have been quickly scuppered

There is an OS-run system in place already which should eventually become part of a much larger NGD. The Spatial Information Enquiry Service (SINES) has been running for two years, on behalf of the Department of the Environment, answering queries by post, phone and fax.

Since the end of last year it has also been available on-line through e-mail and the World Wide Web. SINES provides details about more than 500 data sets held by government departments throughout the UK.

With the on-line version users can query SINES by keyword, by organisation and by the area covered. It provides summary information concerning the data sets that satisfy the criteria given including a map that indicates the cover.

Neil Smith, Ordnance Survey's chief science advisor, says the version of SINES on the Internet is still in its infancy and could be the forerunner of a system which allows the browser to go even further, not just finding where data is held but also accessing it seamlessly.

"In the future, more detailed information will be needed within SINES and its successors to support the applications that the NGD will allow," he says.

"Quality information, increasingly quantitative, will allow rational selection of data sets with links to transfer – and invoicing – systems. The contents of the SINES metadatabase will need to be expanded and updated more frequently. It is essential that the 'one stop shop' happens if our vision of the National Geospatial Database is to succeed."

■ Government contracts: Problems for Italian IT suppliers

By Michael Dempsey

Hard lessons from the past

Investigations into bribe scandals paralysed the government's IT procurement process

The early years of this decade saw what amounted to a revolution in Italian political life, triggered off by zealous anti-corruption magistrates.

Until this remarkable clean-up took place, most suppliers for state contracts had no choice but to enter into a tortuous process that owed little to product quality and specification. A series of cascading bribes and deals awarded on the basis of political loyalties was the norm.

It is estimated that four million people were involved in the payment or receipt of bribes amounting to £2.25bn every year.

The example of Olivetti illustrates the difficulties facing IT suppliers who attempted to steer a course around the old system. Mr Carlo de Benedetti, Olivetti's chairman, fought hard to keep out of the network of payments, known as *Tangenti*. But between 1988 and 1991, Mr De Benedetti has admitted that this policy was reversed. Reluctantly, Olivetti paid out £4.6m in bribes for government contracts.

The commercial reality that drove this decision is painfully obvious. Until 1987, Italy's leading IT company had only sold £1m worth of systems to a prime candidate for such business, the Ministry for Postal Services. But once it bowed to a corrupt system, Olivetti saw sales to this ministry soar to £360m between 1988 and 1991. Then Mr De Benedetti ruled against illegal payments. And orders from the postal service ceased.

The collapse of this system of patronage has totally changed the system of tendering for government contracts. AIPA, a central authority charged with vetting all government IT contracts, emerged from a raft of laws passed in the wake of Italy's *volte-face*. The selection of all IT contracts worth more than £200,000 is supervised.

AIPA is charged with all aspects of technical assessment. It oversees the security standards of potential purchases and advises all government departments. AIPA should, in an ideal world, rationalise every aspect of IT procurement and strive to eliminate the duplication of assessment and systems implementation between different bodies.

Has AIPA really changed the face of Italian government IT? The fallout from Italy's outburst of public indignation over the scale of official corruption means some significant suppliers refuse to discuss the issue at all, describing all official contacts as too sensitive.

But Milan-based Maurizio Mamoli, an executive of French computer company Bull, speaks about the new regime: "My feeling is that we have not really seen a revolution [or], an earthquake. But there has been a real change in terms of discipline. Now we have a lot of controls on every contract."

After the shocks, suppliers are more confident now. Above: computers being checked at Olivetti's plant at Scarmagno Picture: Trevor Humphries

The certainties that the arrival of AIPA has created makes Mamoli's world a better place to do business.

Bull has recently signed a number of government contracts in Italy, including the supply of a large network of desktop workstations for the customs division of the Finance Ministry. The contract, worth more than £2.5m, includes 1,750 PCs backed up by 217 larger processing units.

IBM employs 1,100 staff in Italy, contributing to social security and central and local government systems. Mr Giuliano Ragni, director for government business at IBM Italy, notes that the years between 1992 and 1994 were very difficult. This was when the investigation into corruption moved into top gear, cleaning up the administration but paralysing the procurement process at the same time.

The impact of the *Tangenti* scandal was severe. Officials were in a state of shock in many areas of public administration. Nobody was able to take decisions. Mr Ragni makes a wry observation on the extent of that crisis: "The Italian people can always manage a difficult situation. But this was exceptional."

Francesco Valdevies, a Unisys executive, works with 500 colleagues in Italy. He echoes IBM's Ragni in his reservations about AIPA, noting that it has 200 staff to handle the entire IT sector and often takes too much time to reach decisions.

But Unisys is doing business with the new cleaned-up procurement body. It has begun managing IT for the Justice Ministry on a contract worth about $4m a year. Valdevies is optimistic that Italian state IT is on an upward curve, with hard lessons learned from the chaos of the past.

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Tel: 01423 560064 **Fax:** 01423 525545

Company Description
Tactician UK are the master distributor for the Tactician range of desktop sales and marketing mapping software.
With integrated client server technology and focused design for business applications, Tactician is the essential choice for corporate - wide mapping.

Hardware
Windows, Windows NT (Intel and Alpha), Macintosh

Coverage
United Kingdom and Europe

Applications
Retail, territory and demographic analysis

Cost
From £1000

TACTICIAN U.K.

28 LanOptics Plc

Thamesbourne Lodge
Station Road, Bourne End, Bucks SL8 5QH
Tel: 01628 533433 **Fax:** 01628 532252

Company Description
LanOptics' Guardian is a transparent Internet firewall that cost-effectively protects private networks against unwanted infiltration from the Internet. Features include a uniquely user-friendly control interface and support for OS/2, Windows 95 or Windows NT platforms.

Hardware
OS/2, Windows NT, Windows 95

Geographical Coverage
Global

Applications
Internet Security

Cost
£5,000

29 Netsoft International Limited

Coach House Cloisters,
Hitchin Street, Baldock SG7 6AE
Tel: 01462 490094 Fax: 01462 490919

Company Description
Netsoft designs, develops and distributes a range of software products that provide easy, reliable and cost-effective client/server software solutions, linking PCs and PC networks to IBM mainframe and AS/400 computer systems. Netsoft are available for Windows, Windows for Workgroups, Windows NT, Windows 95 and IBM's OS/2 and Warp operating systems.

Geographical Coverage
International.

Applications
IBM mainframe and AS/400 connectivity.

30 Apex Group

Apex House, 2 Watling Drive, Sketchley
Meadows Business Park, Hinckley, Leics.
LE10 3EY

Company Description
The Apex Group has provided IT solutions to companies in the manufacturing and distribution sectors since 1982. It is the leading implementation specialist for Chameleon 2000/CS3, the integrated Financial, manufacturing and distribution system from Tetra, with over 250 successful customer installations in the UK.

Hardware
Unix, Novell, Windows NT, Btrieve, Informix, Oracle, SQL Server

Geographical Coverage
Apex Group has offices in Hinckley, Sheffield and Southampton.

Applications
Tetra Chameleon 2000/CS3

APEX GROUP

31-32 IT Recruitment
33 Lotus Notes Application Development
34 Multi-media Software
35 Networking

31 D.C.I.S. Limited

296A, Walton Road,
East Molesey, Surrey KT8 0HY
Tel: 0181 941 3995 **Fax:** 0181 941 3390

Product Description
"The PeopleWare96 services, ContractorDirect and ConsultantDirect, offer employers remote access to databases containing the full details of IT Contractors and Consultants. Simply choose desired skills, products, industry and availability on you local PC and the query will immediately return candidates who meet the selection. Then you can contact and hire directly!"
Hardware IBM compatible PCs, Networks.
Geographical Coverage
National and International
Applications Can interface to existing Personnel/Database Systems.
Cost Licensed at fixed cost of £1,200 per quarter

PeopleWare 96

32 Elan

93 Newman Street
London W1P 4DS
Tel: 0171 8301300 **Fax:** 0171 8301333

Company Description
Established in 1987 Elan provides IT and communications recruitment services. Acknowledged as one of the City's leading suppliers with over 10,000 financial specialists registered, we have a real understanding of IT consultancy requirements.

Hardware
All

Coverage
Across the UK, Europe, Far East, USA

Applications
All

Elan

33 Revelation Software

270 Upper 4th Street
Central Milton Keynes MK9 1DP
Tel: +44 (0) 1908 233255
Fax: +44 (0) 1908 233220

Company Description
Revelation Software provides the only suite of application development tools that provide native access to the rich, unstructured data of Lotus Notes. ViP is a visual programming tool for the single developer who needs to create applications quickly; **OpenInsight for Workgroups** gives users network-aware, multi-user capabilities, and an active extensible repository that facilitates collaborative development; and
Revelation Reporter enables both novice and expert users alike to create quick but sophisticated reports.

REVELATION SOFTWARE

34 First Information Group/ Flag Tower™

Knightsbridge House, 197 Knightsbridge,
London SW7 1RB
Tel: 0171 393 3000

Company Description
Bespoke multimedia business to business solutions. The Consumer Division, FlagTower™, publishes highly acclaimed interactive documentaries combining stunning graphics, text and animation with a unique audio visual narrative. Releases include The Space Race, World War I, World War II, War in the Pacific, Great Generals of the 20th Century and A History of Medicine.

Hardware/Compatibility
Multimedia IBM PC and compatibles

Geographical Coverage
World-wide

Cost
Single disk: £29.99
Double disk: £39.99

FlagTower

35 Fore Systems Inc.

2475 The Crescent
Birmingham Business Park B37 7YE
Tel: 0121 717 4459 **Fax:** 0121 717 4455

Company Description
Fore Systems is the world-wide leader in the design development, manufacture and sale of high performance local area networking products based on ATM (Asynchronous Transfer Mode) technology. Fore Systems has delivered ATM LAN solutions to over 1,000 customers in 40 countries including telecommunication service providers, Government Agencies, research institutions and universities. Fore Systems products currently constitute the largest installed base of LAN Solutions.

Geographical coverage
International

Applications
Local and wide area networking

36 Networking
37 Networking & Infrastructure
38 On-line Business Information
39 Outsourcing IT
40 Sales and Marketing

36 Gandalf Digital Communications Ltd

Gandalf House, Doncastle Road,
Bracknell, Berks RG12 8GD
Hotline: 01344 55555 **Fax:** 01344 303093

Company Description
Gandalf is an international manufacturer of high performance networking products, serving the needs of blue chip, medium and small companies worldwide. Leading products include low cost of ownership remote access and concentration products, supporting teleworking, Internet projects and regional/head-office networking requirements. Call our hotline for details.

Geographical Coverage
Worldwide

37 X-Net Ltd

Island House, 43 High Street,
Fordingbridge SP6 1AU
Tel: +44 1425 656661
Fax: +44 1425 657723

Company Description
Building bridges between industry and Government funded organisations requires a clear understanding of each others business visions. X-Net achieve this by providing technical consultancy to public bodies and service providers in the field of networking and IT infrastructures.
If you are bidding, or preparing to outsource, and you need quality solutions and assistance, you need the face behind success: X-Net - the independent technology consultants.

Geographical Coverage
International

X-NET LIMITED

38 Tel-Me

Tel-Me Information Centre, PhoneLink plc
FREEPOST (BS 6851) Bristol BS8 4YY
Tel: 0800 991155 **Fax:** 0800 317206

Company Description
Tel-Me is PhoneLink's PC based on-line business information service which provides UK businesses access to essential everyday information quickly, cheaply and effortlessly. Information available on Tel-Me includes telephone numbers (business telephone numbers and addresses are free), train timetables, route and street maps, company financial records, hotels and much more.

Hardware
486, 8Mb, WIN

Coverage
UK

Cost
From £49.95
+ VAT

Tel-Me

F10

39 CFM Group Ltd

Westhorpe House, Westhorpe
Marlow, Bucks SL7 3RQ
Tel: 01628 488888 **Fax:** 01628 488088

Company Description
CFM is one of the UK's fastest growing and most successful IT outsourcing companies. With a turnover of over £120m pa and over 100 clients, CFM has unique experience of its core business. CFM's success in both the public and private sectors is based upon its continued investment in people and its ongoing commitment to client service.

Hardware
CFM solutions are system independent, encompassing all major vendors.

Geographical Coverage
CFM operates throughout the UK, with over 30 locations.

Applications
CFM supports oracle open applications.

40 PeopleSoft UK Ltd

Apex Plaza, Reading,
Berkshire RG1 1AX
Tel: 01734 522 000 **Fax:** 01734 522 001

Company Description
PeopleSoft develops and markets PeopleSoft Financials, PeopleSoft HRMS, PeopleSoft Distribution and People Tools, a powerful application development and customisation environment. PeopleSoft combines graphical user interface, relational database technology, and client/server architecture to deliver superior product functionality and technologically innovative applications, with the best customer service in the business.

Hardware
IBM, Digital, Hewlett Packard,Data General, SUN, NCR.

Coverage
Fortune 500 and Fortune 1000

Applications
PeopleSoft Financials, PeopleSoft HRMS, PeopleSoft Distribution, PeopleSoft Manufacturing.

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GROUP

43 LANkind (UK) Ltd

Tel: 01256 851500
Fax: 01256 851600

LANkind

Company Description
"LANkind have met two apparently contradictory requirements, reduced costs and increased service levels, without the solution suffering in any way" - evaluators comments.
LANkind are a Technical Service Provider (TSP), providing high level networking services to corporate clients for enterprise wide solutions irrespective of complexity. As a service only company, LANkind's areas of expertise include strategy, design and implementation of NetWare 4x, NDS and MS-Networking.
LANkind have more Master CNE's than any other company in the UK, and have fulfilled the needs of over 45,000 network clients to date.

44 Training & Consultancy
45 Workflow Automation
46 Workforce Management

44 Peritas Ltd

Beaumont, Old Windsor, Windsor,
Berkshire SL4 2UP
Tel: 01753 868181 **Fax:** 01753 841775

Company Description
One of Europe's largest consultancy and training organisations, Peritas provides: information systems training; multimedia consultancy/training; human development consultancy; change management; skills training; training venues; training facilities management.

Geographical Coverage
World-wide

Cost
Please ring 01753 851483 for further information.

PERITAS

45 Staffware Plc

46 Chagford Street, London NW1 6EB
Tel: +44 (0) 171 262 1021
Fax: +44 (0) 171 262 3958

Company Description
Recognised as the top independent production workflow system by leading industry analysts, Staffware automates departmental and enterprise-wide business processes. Staffware integrates with external databases and other software packages including e-mail, text and image processing and general office applications.

Hardware Compatibility
UNIX servers, Windows NT client/servers, support for character terminals, Windows 3.X and '95 and AppleMac clients, OS/2 in Q1 '96.

Geographical Coverage
Worldwide - Europe, the Americas, the Middle and Far East, Japan and the Pacific Rim.

Applications
Cross-industry and vertical applications.

Staffware WORKFLOW

46 Bodet Limited

Unit 4 Sovereign Park, Cleveland Way
Hemel Hempstead, Herts HP2 7DA
Tel: 01442 234141 **Fax:** 01442 234345

Company Description
Bodet offer comprehensive solutions to time and attendance processing with a range of computerised/stand alone systems. All systems interface with various payroll/personnel softwares. Management Reports on man-power/absence/access. Bodet also manufacture office and industrial clocks including digital world multi time-zone displays.

Geographical Coverage
UK/Europe

Applications
Workforce Management
1-450 employees single/multi site.

Cost
From £585

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■ **Enterprise intelligence systems:** Data access and reporting tools

Reward offered for inside information

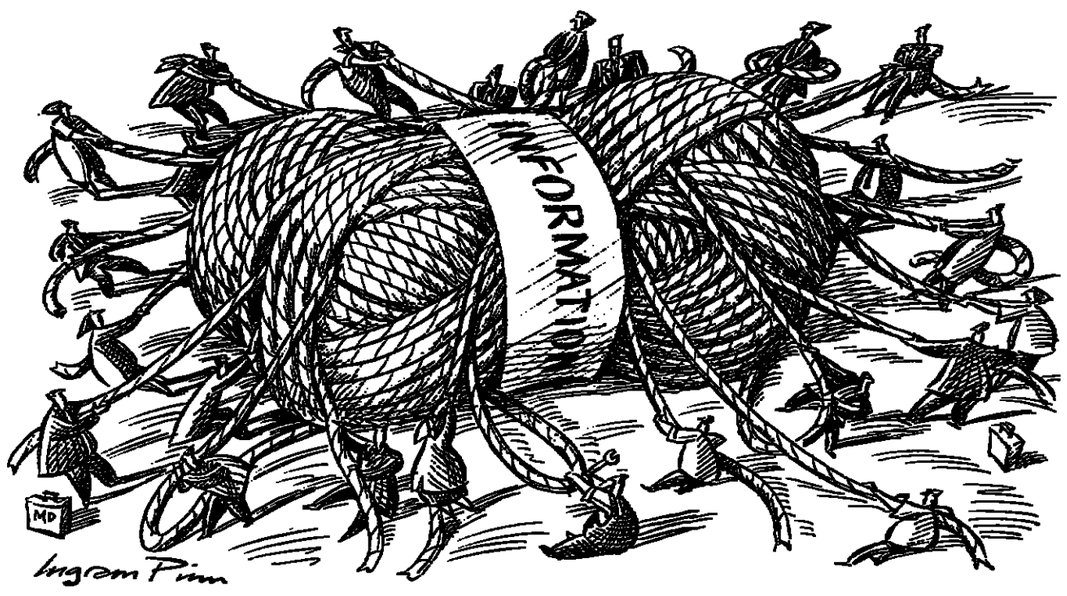
By Claire Gooding

Employees want computers to help deliver insights, not just mere numbers

FT IT

Software at Work

How enterprise intelligence systems help to identify new business opportunities



Enterprise intelligence systems. EIS – now re-christened since their first outing as *executive information* systems – exist so that business users can get their own insight from manipulating the facts and figures.

The old-style EIS presumed that the view from the top needs more insight than anyone else's, and more help getting it. That is a dangerous assumption, according to Mr Nigel Pendse, principal of consultancy OLAP solutions, and co-author of the OLAP (Online Analytical Processing) report by Business Intelligence of Wimbledon.

"EIS for executives was discredited for two reasons," says Mr Pendse. "It was based on the hypothesis that if senior executives had access to data, they would do their jobs better. It was flawed, because that's not how they spend their time – and they tend to rely on people and opinions, not facts and figures.

"Even if true, the double problem was overcoming the technology: the IT people thought a lack of keyboard skills indicated a lack of intelligence, and produced what I call 'patronising' systems."

Hence, argues Mr Pendse, the change from E for Executive to Enterprise or Everyone's in the acronym. EIS. Once the scale changed, from a few users in the boardroom to hundreds of potential users, the EIS price-tag also became unrealistic for a simple information system.

"Eventually the penny dropped that hand-crafting elaborate screen displays was a waste of time: screen displays were not an issue for the people who turned out to be the real users, whether executive or otherwise. The emphasis changed to getting hold of the data," adds Mr Pendse.

"Data turned out to be the real issue: getting hold of it and making it consistent, and delivering it to the right people. The key is automating that entire process," he says.

The trouble with historical data, he adds, is that the company structure will certainly have changed, and the level of historical detail available may not be adequate to re-state the history in a form compatible with the current structure.

The new-wave merchants of "data warehousing" tools have certainly seized on data cleansing as a significant activity. Mr Ram Srinivasan, product director at Los Gatos-based Red Brick Systems, identifies five distinct components of analysis access and reporting – "users need to get data out of operational systems, cleanse, scrub, reconcile it. The business user accessing the data warehouse and asking ad-hoc one-off queries is at the other end of the process".

Red Brick participates in the middle, grasping that data and loading it into the data warehouse database in an overnight window – "an example might be a drug store, updating the day's Epos (electronic point-of-sale) transactions. We help manage data and provide connectivity".

Whereas the old-style EIS systems were delivered to consumers, the data warehouse approach is to provide users with a query tool which allows them do it themselves.

In the opinion of Mr Pendse, the difficulty is getting the balance right between tools for experienced computer users, and giving novice users access to a simple tool – "some of the vendors got it wrong by making it too complicated, and others got it right by pitching it as a simple level, suited to an enormous market. In my opinion, Arbor got it right, so did TM/1 from Simper Corp, and Cognos with PowerPlay, which now has over 100,000 users".

Cognos, he says, has won a larger market by keeping it simple – without being trivial – whereas Holos, from holistic, "is labour-intensive to build, but it builds excellent systems. The holistic approach is to have lots of features. Cognos is to keep it simple".

The balance between simple and powerful is no easy act. SAS Institute, whose SAS System is one of the most sophisticated analysis tools available, has just launched a financial modelling suite aimed at achieving the right balance.

Its previous EIS suite was dismissed by Mr Pendse as being for "idiots or programmers – with nothing in between". The new approach guarantees a robust application, which will nevertheless allow the user to cruise for information and refine queries in the process known as "data mining".

Another interesting development has been the addition of "EIS-like" extensions to accounting suites, such as D&B's Smartstream and Tetra's Chameleon CS3 and Legend products.

Mr Tom McDonagh, product marketing manager for Smartstream, says that decision support, OLAP, and EIS-like facilities were central to the Smartstream strategy.

"We were criticised for being slow to market with client-server solutions, but we did it right because we built a common architecture, and we built workflow into Smartstream from the start: that's a bandwagon others are now keen to jump on.

"The common applications architecture we use supports all the core process, but the desktop interface integrates images with text, spreadsheets, and all other components of business processes."

This last idea, of introducing an element of sharing and distribution of the data, could not be further from the original exclusivity of the EIS. Yet it has retained the elements of disparate sources, and different formats.

It is this ability to give the full overview that makes the data warehouse so alluring: a consolidation of data from different sources, with powerful search and retrieval tools which allow the user to trawl and explore correlations.

"Business and IT are really acting as one through the data warehouse, which is why it has caught on so fast," concludes Mr Ram Srinivasan. "Management systems allowed people to automate activities in isolation, creating islands of efficiency. This approach turns the picture upside down, connecting those activities so you can look at the situation from the customer's point of view. It changes the basis of competition, so that IT has a wider role in identifying new business opportunities."

■ **Data analysis:** Towards the information suite

New ways to extract key business data

By Rod Newing

Companies need more software tools to cope with increasing volumes of information. They may even get them in suites

As competition becomes more intense, the amount of information available is increasing dramatically. Organisations are going to need to analyse and exploit larger volumes of information more effectively than their competitors.

Users may already have Enterprise Information Systems (EIS), On-Line Analytical Processing (OLAP) servers, data warehouses and query tools to provide them with business intelligence, but these are not going to be enough.

OLAP servers provide an interactive multi-dimensional view of data, using powerful analytical functions and can be accessed by a variety of tools, including spreadsheets and EIS.

A whole range of information tools already exist in specialist areas and they are going to be used more widely in conjunction with existing tools. These will include data mapping, data visualisation, data mining, neural networks, intelligent agents, text search, business rules and others.

Desktop mapping software provides a graphical view of data, superimposed upon a digital map.

Microsoft says that 90 per cent of corporate data already has a geographical dimension, such as an address or telephone number. This can be converted to latitude and longitude which can now be stored by relational databases.

This, in turn, allows users to explore the business environment geographically, comparing data in relation and proximity.

All this can bring a new vision to the underlying data. It allows users to find new information, such as how many customer-sites are within a hundred miles of a factory. Integrating external demographic data can show such information as local market sizes and penetration.

Data visualisation tools provide a three dimensional graphical representation of corporate data, showing relationships and relative sizes. Users are able to navigate through a three-dimensional view of their data by steering with a mouse. This shows vertical histograms and lines which show linkages to further analysis.

By following the linkages, data visualisation makes it easier for users to understand the relationships within different parts of the database. They are able to gain a better overall understanding of the structure of their data and therefore the business environment which it represents.

Data visualisation may also include data mapping. Microsoft has recently demonstrated this as a future function in its Office suite.

Alternatively, data mapping may show a visual picture of where information lies physically within an organisation, allowing users to identify sources of information or related records.

Data mining tools allow users to examine large volumes of numerical data to discover hidden patterns and cross correlations. These would be difficult or impossible to establish using normal queries and analysis techniques. They differ from traditional tools because the user does not know what question is to be answered.

The main technologies used are genetic algorithms and neural networks. Genetic algorithms establish pattern rules and decision trees from the data.

Neural networks are computer programmes which can be said to work in the same way as the human brain,

Continued on facing page

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Hidden business patterns revealed

Continued from previous page

which is usually poor at complex arithmetic but good at recognising patterns in incomplete data.

Neural networks are models of the human brain which can be trained, rather than programmed. They are presented with actual data, from which they are able to recognise patterns in data and convert these into a business model. This model reveals the hidden patterns.

The model also allows applications to be used outside data mining to make judgments and forecast events, which are both very important aspects of decision support. Neural networks do not replace conventional programmes, but augment them and hybrid systems are being developed.

Inquiries

Another means of coping with large amounts of data is the use of business rules in generating more complex and powerful queries. A normal query would only select data which fitted strict criteria and display it as a simple list. However, business rules can be used to provide weightings and preferences. The query would then search data outside the original strict definition and produce a list ranked in order of preference.

An example might be a traditional query of customers with turnover of more than £5,000 in the last three months. The use of rules could include high in a ranked list of importance customers who spent £10,000 in four months, along with customers spending £4,000, but in the last month. This could provide a far more useful answer than would be generated by a traditional query.

Managers are going to need sophisticated text search tools to read documents and identify and prioritise what is relevant to them.

Originally developed for the CIA, this technology allows managers to build up a complex definition of their areas of interest in English language terms. The software reads the text and produces a list of documents of interest, ranked in order of relevance.

Intelligent software agents are needed to search relational, multi-dimensional and text databases for user-defined exceptions and alerts and report them to the user in any format they choose. These agents run constantly or on a scheduled basis, without user initiation and may include text search and neural networks. They learn from the user what is relevant or important to them as they are used.

Newcomers to the EIS and OLAP market are appearing and established companies, such as Sybase and Business Objects, are developing new OLAP products. They are trying to bring better technological solutions to the market.

Intelligent agents

The traditional vendors of information applications, such as Cognos, Comshare, Oracle's OLAP Division, Planning Sciences and Pilot are competing by extending their product ranges by embracing these new technologies. They are now offering intelligent agents, data mining, data visualisation, desktop mapping and neural networking to their users alongside their existing information products.

It is unreasonable to expect users to evaluate niche products and integrate them, whether themselves or with consultants.

Leading vendors are in an ideal position to integrate newer technologies and incorporate them into their applications or market them as easy to use complementary tools. This way, users should be able to use these new technologies to reap additional business intelligence from their ever increasing data volumes.

We have seen a market consolidation process start with Oracle and Informix purchasing EIS and OLAP companies. This trend allows leading vendors to provide an increasing range of information tools to their customers. This could be harmful to users if the integration between products made them proprietary. However, organisations such as the OLAP and Metadata Councils should prevent this by enabling different vendors information tools to work together.

There is a logical outcome to this 'one-stop-shop approach'. Just as users took to personal productivity software suites, so we might see the introduction of 'information suites,' with a range of integrated tools for users to select.

■ Reinsurance applications — By Claire Gooding

Better ways to assess risk

How an enlightened international company uses its intelligence

The US-owned Employers' Reassurance International is the third largest reinsurance company in the world. Its latest IT innovation – an 'information delivery' system that channels data from all over the world – took the unusual route of commissioning a bespoke system using 'intelligent' techniques to ferret out relevant data.

Well-known insurance agents and companies who specialise in life insurance are the main clients for Employers' Reassurance's service. A large proportion of its European business takes place in the UK, through its City of London-based headquarters, but the company has offices in Germany, France, Denmark, Tokyo and other financial centres. It works through agents and subsidiaries in the Middle and Far East, South America and elsewhere.

This far-flung network poses specific IT challenges, but more important is the core activity of consolidating all the data from different sources, and assessing the degree of risk inherent in the business.

"Our client-companies regularly send us information at the end of the month for us to reconcile the data and figures," explains Tariq Shafique, a business analyst for Employers' Reassurance. "It was all coming in different structures, and we found that they were finding difficulties generating the data to meet our needs."

Mr Shafique set out to look for a system that would ease the flow of information between clients and within Employers' Reassurance, but also be highly adaptable and easy to use for the clients themselves – "we set up a pilot project, in July 1995, to improve the process for the customers, and decided to start in the Middle East, where there seemed to be the most problems. The Oman Insurance Company was keen to solve this difficulty, so we started with them. The mix of tools they had – word processing and spreadsheets and small PC-based databases – simply gave no structure or intelligence to the data".

Fortunately, Mr Shafique's own experience included work in the region with a well-known management consultancy as an expert on business process re-engineering.

"We had to analyse what needed improvement, and look at their business practices. It took time to develop to the level of complexity needed – the problem was bigger than just looking for inter-

Tariq Shafique, business analyst: 'We worked to a strict deadline on a fixed-price contract'

rogation tools: we needed a tool that provided MIS and EIS-like functions, but which also added real intelligence to the data. The resulting applications would be used at the core of the company to run the life administration."

Employers' Reassurance looked at a number of tools for the development of Microsoft Windows-type applications, including, PowerBuilder – "every tool we came up with required a lot of specialist development skills from programmers who knew the business: that simply wasn't an option, because of expertise and resources," says Mr Shafique.

Flexibility

He spotted a *Software At Work* story in the Financial Times about Horizon, a Leicester-based software house, doing very similar flexible reporting on research in the medical field.

"We realised that it could be valuable experience for us," says Mr Shafique, who approached Horizon for an estimate, on the basis of using its Safena software development tool.

"The people in Oman wanted a system up-and-running in January. Not only was Horizon's estimate half the cost of the closest competitive bid, but they bid within timescale and for a fixed price – with a guarantee for zero payment if they didn't meet the deadline. Other companies were quoting a year, for much more basic reporting than we needed."

Horizon's "secret weapon" was a tool called Safena Programming Techniques, which uses Artificial Intelligence (AI) methods. Safena stands for 'structured AI flexible extendable neural advanced' programming, and has been used in medical, accounting retail, insurance and banking sectors. According to Gian Pavlo Benedetto Serra, Horizon's director, the company has been investigating AI since its earliest commercial days in the early 1980s, and Horizon has always built AI into its turnkey systems.

Mr Shafique says: "For us, the benefit is the improved management of the data, and we now know that whenever we request certain information, in whatever order, we know we'll get it, with 99 per cent accuracy, and in the right format."

Even the fixed-price contract worked – "they just got on with it, and we heard nothing until just before Christmas, when I called up the Oman Insurance company for a progress report. Mr Khan of Oman Insurance said they were up-and-running before schedule, and he was very happy with the way it was working."

Remote working poses no problems because Horizon also has telecom experts. According to Mr Shafique, both and his Omani client now have a custom-built application, with data entry tailor-made – "anyone can process and get the information they require, whether at clerk or managing director level. There is a flow of information between the users, set up to reflect the client's specific practices.

"That's the power of it, because it can be adapted to any company, and it gives them a forward growth path. There is a flow of information between different 'processes' and individuals. This makes it a management tool, with audit trails and back-tracking – that's very important in our business where we have to trace back a bad investment decision".

Employers' Reassurance now plans to implement a global data network, adapting the application to each client's needs.

■ Housing association appplication

Slicing and dicing the data

A new reporting tool can manage arrears and match tenants and accommodation

Information about vacant properties and unpaid rent is critical to the business of Northern Counties Housing Association. With more than 18,000 properties on its books, Northern Counties is one of the largest housing associations in the UK, writes Claire Gooding.

It chose IQ/Vision software after an assessment of the information delivery systems available. Now, 57 of its 300 employees use IQ as an everyday way of creating their own reports.

Like other housing associations, Northern Counties builds or renovates properties and then rents them out for domestic occupation. It is unusual for housing associations to have such a large stock – few associations manage more than 10,000 properties.

Until 1988, housing associations typically had 80 to 90 per cent grants, and they still work closely in partnership with local authorities in providing homes. Local authorities have the right to nominate who will occupy 50 per cent of the properties.

Northern Counties has to manage its resources very carefully. Only 45 per cent of its grant comes from the government-funded Housing Corporation. In addition, it receives funds from a variety of banks and building societies, including the Bank of Scotland, NatWest and Abbey National.

Northern Counties' income also includes a £50m credit-enhanced bond in January 1995, the first of its kind in this market.

"We are under a lot of pressure to manage our finances effectively," emphasises Lisa Burns, Northern Counties' director of corporate services.

"We need all sorts of information to help us manage our investment. As part of our

Lisa Burns, director of corporate services: 'We have to manage our resources very carefully'

strategy, everyone will have a PC on their desk. The company culture is moving towards people doing their own secretarial and administrative work via Microsoft Office."

Ms Burns has overseen the implementation of the new integrated IT strategy, undertaken since 1992. Oracle became the standard in-house database in that year, running on a Data General Avion. Software includes the Oracle Financial and HR Software applications, as well as the Housing Management packages.

Having created an "IT culture" of independence and flexibility, Northern Counties recognised that Oracle's do-it-yourself reporting tools demanded a high level of expertise from its staff, who were still on an IT learning curve.

Qualities high on the shopping list for an enterprise-wide reporting tool were user-friendliness, a good screen interface, and the ability to keep building ever more complex queries beyond those first invitingly simple reports.

Northern Counties was looking specifically at EIS tools such as Comshare and others, but was impressed by the IQ's demonstration of its recently acquired Vision product, which showed the right mix of tailoring and ad hoc facilities.

Typically, Northern Counties managers need to see the arrears due on a daily basis, and be able to "slice and dice" the information so that it can be assessed on various factors – such as the percentage of arrears against rent debit, the proportion due in each geographical area, and the local management patch.

The director of housing management services is one of the most enthusiastic users of the system. He uses a tailor-made report (built in-house) to see the state of play with arrears, and to check the stage reached in the process of recovery.

In serious cases this might mean a notice to seek possession. Like any landlord, housing associations can evict persistent defaulters. "I can sit and run off the top 20 performers in terms of arrears-chasing – and the bottom 20," he says.

By using IQ/Vision, users can delve into the information on properties and tenants. Vision refers to "cubes" of information, a simple way of describing the way users can combine data to view and analyse it.

IQ has built what Ms Burns calls a "briefing book", a sort of viewfinder of essentials which are the starting point for the majority of daily tasks.

"My own style is to manage by 'traffic lights' and hot spots, looking at the urgent items first, because it's possible to go from there down to detail on any cell."

Highly visual

IQ's tools work with a variety of databases. The IQ Vision software it is using with Northern Counties goes a step further than mere access and reporting. It provides a highly visual, EIS-like presentation of facts, instantly comprehensible on screen or paper, using 3D effects created via Visual Basic.

"It's given us access to the information in our Oracle database at the click of a mouse," concludes Ms Burns. "It is a very powerful tool and we believe it provides us with the competitive advantage we need."

■ Overseas Development Administration — By Claire Gooding

Multi-dimensional solution

How software helps sort the facts on 10,000 aid projects

The Overseas Development Administration runs Britain's overseas aid programme, spending £2.3bn annually. Some information about its many projects is kept centrally, in the management systems at its London headquarters.

Much more information is kept at the locations of the individual projects themselves, on local PCs, portables, or in systems to which the ODA has no on-line access – or even on paper.

"Our users were coming to the IS department wanting the old 'Nirvana' of end-user reporting," explains Mr Brian Hammond, head of the information systems department.

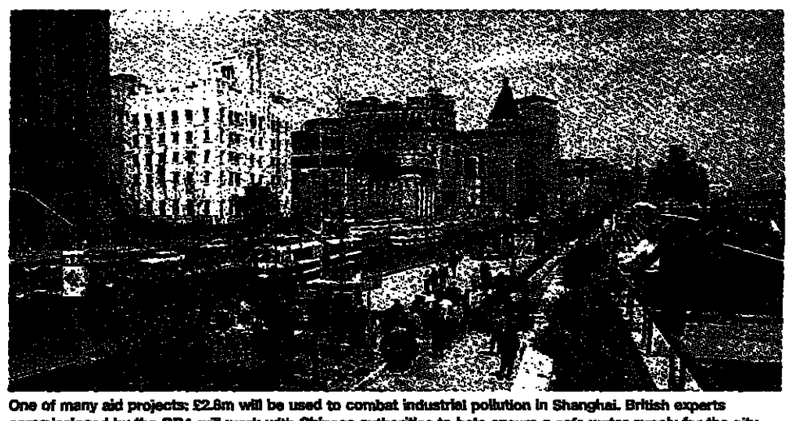
"The concentration had been on getting information into the system rather than making it possible to report on it: users were demanding ease of access, but they also wanted better ways of presenting and interpreting information."

When Mr Hammond took over the information technology department 10 years ago, he had two rules: "No fanfold paper and no Cobol". He introduced Data General minicomputers, and chose a 4GL approach to building the core applications.

"We've been Cognos customers since 1986, and built our core applications for integrated management in PowerHouse, covering accounting, loan management, overseas payroll, and other applications.

"We're currently migrating to Hewlett-Packard HP 9000 under HP-UX Unix and one of our aims in upgrading is to improve both the flow, and the presentation, of information," he adds.

In April 1995, the Oracle database became part of the ODA's strategy, along with Cognos' Axiant, a graphical user interface for Cognos tools. But that did not solve all the problems.



One of many aid projects: £2.8m will be used to combat industrial pollution in Shanghai. British experts commissioned by the ODA will work with Chinese authorities to help ensure a safe water supply for the city

The main issue was multi-dimensional data – "the spreadsheet did not meet the needs of informing us about different countries, different timescales, expenditure versus forecast, and the various economic sectors – health education, agriculture," says Mr Hammond.

"We needed to keep in line with the ODA's policy objectives, issues like Good Governance and Children by Choice, which meant that we had to be able to score each of the 10,000 projects against those objectives, and make that information easily accessible."

Cognos presented its new business intelligence tool, PowerPlay, as a solution.

"Our users had to be able to go from a high level of aggregation to dig right down to detail.

"PowerPlay's information 'cubes' offer the ability to do that, and to do it in any number of dimensions – something to which the users could relate immediately," says Mr Hammond.

Using the Cognos tools PowerPlay (for the cubes) and Impromptu (for end-user reporting), ODA created a pilot project called Pims (Policy Information Markers). This produces graphics and tables on the projects, including forecast and expenditure information. Results are networked to the 10 overseas offices using e-mail as the glue.

"It is impressive that we can update the cubes and compress them significantly – 40MB database compressed to 1MB – to send them overseas sites."

The pilot has been achieved for a cost of £50,000. Mr Hammond anticipates that eventually, as many as 1,000 people in the ODA may have a use for the Impromptu tools – "performance is not an issue because it's a PC-based tool".

Nevertheless, the ODA is still looking at other EIS-like tools: "We're surveying the market to ensure that this is the right way ahead," concludes Mr Hammond.

■ BAT Industries — By George Black

Benefits of foresight

BAT has installed a new system which will squeeze inefficiencies out of the supply chain

This month BAT Industries will complete the installation of a supply chain management system based on Holos software, which is produced by the UK company Holistic Systems.

The £1.5m project has taken two and a half years to come to fruition.

BAT hopes that its new Foresight suite of applications, built around Holos, will match supply and demand more closely. Its aim is to cut out losses of stock that has deteriorated due to overstocking and losses of business due to understocking.

Mr Brian Atmore, BAT's business area manager, says the company is confident that it can save at least £820,000 per year over the next two years, mainly by reducing problems of overstocking.

The system should improve the efficiency of the international company's UK factory at Southampton.

"Our belief is that through better planning we can manage our cost of production better," Mr Atmore says.

Brands

The international tobacco brands involved include State Express, Benson and Hedges and John Player Goldleaf, as well as US names such as Lucky Strike and Kent. Most of the UK company's export business is expected to be handled by the Foresight system.

The new system runs on an IBM RS/6000 Unix workstation at Southampton. If it proves successful it could also be installed at some of BAT's other factories.

In 1993 consultants at Price Waterhouse drew up a list of around 20 possible suppliers of what would today probably be described as online analytical processing (Olap) software suitable for use in the Foresight system.

Most of the products, it was found, could handle sales forecasting but could not provide multi-dimensional modelling, according to Mr Atmore.

Some of them were not then available in a Microsoft Windows version, a requirement of BAT. Holos and Kenan Technologies' Acumen were shortlisted.

"We needed to be able to apply business rules and view the information in at least six different dimensions," says Mr Atmore.

"Holos was the only product which at that time was robust enough to allow us to undertake the project."

Holos was chosen to run on top of a more conventional relational database management system from Sybase which was judged to give the fastest response time (the target one-second response to users is still elusive.)

BAT spent six months establishing the business case for making the investment. There were no reference sites which could be visited and BAT was aware that it was going out on a limb with unproven technology. It therefore put a lot of effort into assessing the feasibility of the scheme as well as ensuring that the users supported it.

The cost of the Holos software made up £250,000 of the £1.5m project cost, the RS/6000 and other hardware around £150,000 and the rest consisted of development and installation costs.

A large amount of bespoke programming – larger than expected – was carried out by the Price Waterhouse team to tailor the system to users' local requirements and make it as user-friendly as possible.

Foresight comprises an executive information system (EIS), or decision support system (DSS), providing information on the company's operations worldwide. There will be users in the UK, US, Taiwan, Hong Kong, Singapore, Thailand, Saudi Arabia, Dubai and Martinique.

Sales and stock information will be used to calculate future sales forecasts and production requirements so that stock is maintained at the right level, with a direct electronic link to the manufacturing system called Business Planning and Control System (BPCS) supplied by Systems Software Associates (SSA).

Implementation of Foresight began in July last year and has been rolled out to users around the world in stages since then. Around 120 territory managers, regional export managers, production planners and customer services staff will use the system.

They will access it across a network managed by the UK company Scitor International Telecommunications Services.

Foresight replaces a number of different regional systems, some run on spreadsheets, others paper-based. There has been no company-wide supply chain management system until now.

Leader

Holistic Systems is a privately-owned company with its head office in London and other offices around the world. It is a leader in client/server EIS, mainly using Unix workstations as servers and Windows personal computers as clients.

Its products are used at over 900 sites worldwide and the company is growing at 40 per year, with revenue of around $24m.

Holistic Systems faces intensifying competition and its position is likely to be increasingly challenged, notably by Oracle's takeover of IRI Software's EIS products, as well as by other fast-growing vendors such as Planning Sciences.

■ Computer industry trends

By Paul Taylor

The threshold of a significant change

Powerful networks will increasingly unlock corporate 'knowledge' and move it to people who can use it effectively and creatively

The arrival of the desktop personal computer in the early 1980s changed the corporate computing landscape for ever by shifting computing power from the mainframe and the central IT department to the end user.

Quite soon, however, the limitations of systems based around islands of computing power became apparent ushering a second desktop revolution as stand-alone PCs were hooked together to form Local Area Networks (Lans) and then Wide Area Networks (Wans) to share applications, data and peripherals.

In some companies, distributed computer systems and client/server networks have replaced mainframe systems for many applications, including those "mission critical" processes on which organisations depend.

Among the primary beneficiaries of this shift have been hardware vendors such as Compaq Computer, IBM, Digital and other hardware vendors who have developed high-powered machines for the $11bn-a-year PC-based server market.

Meanwhile, Novell's NetWare has become the undisputed market leader in networking software with more than 60 per cent of the global network operating system market embracing 40m users. At the same time, it faces competition from rivals including Microsoft Windows NT server, IBM Lan Server and Banyan Vines.

Local area networks have been interconnected using devices such as routers, hubs and bridges to form enterprise-wide computing systems since the late 1980s.

As a result, the Lan internetworking market has become a key focus for network hardware suppliers such as Cisco – the worldwide internetworking product market leader – 3Com, and Bay Networks. Companies are using a wide variety of methods to connect remote sites and "teleworkers" operating from home. These facilities range from dial-up modem connections over ordinary analogue telephone lines to integrated services digital network (ISDN) connections and dedicated high speed digital links.

The growing pervasivness of networking has encouraged vendors such as Cisco, which originally focused on the big corporate market, to launch products aimed specifically at small- and medium-sized businesses and teleworkers.

According to Dataquest, the market research firm, the market for internetworking products aimed at the mid-tier and small office/home office market is estimated to grow from $5bn to $17bn by the end of the decade.

Supporting this, a recent survey commissioned by US Robotics, the modem manufacturer, revealed that 80 per cent of UK-based network managers rate dial-up remote access and Wan connectivity as a priority issue for the next 12 months.

The rapid growth of local area networks, client/server systems and internetworking has meant new challenges for IT departments used to dealing with centralised mainframe-based systems and applications.

Faster PCs and network servers and larger multimedia-rich files already mean that many corporate networks, based on traditional technologies, are close to breaking point. As a result, there is increasing interest in high-speed networking technologies such as Fast Ethernet and Asynchronous Transfer Mode (ATM) capable of carrying high volumes of mixed data, voice, graphics and video.

FT IT

Network-Centric Computing

Route to leaner, smarter operations

Other issues facing IT departments include network managing the network and network security – a key issue, particularly with the growth of connections to the Internet.

Many now argue that the growth of Internet commerce in particular is ushering in another profound change as artificial boundaries between internal corporate networks and the wider external world crumble.

"The distinctions between Inter and Intra-networking are blurring," says Mr Nigel Oakley of 3Com. This new computing model has been dubbed "network-centric computing" by some industry participants, including Mr Louis Gerstner, IBM's chairman.

He believes its advent represents an important opportunity for IBM because the implied requirements for complex network management, systems management, heavy transaction processing, massive databases, powerful scaleable servers and systems integration play to the US computer group's strengths.

"We are excited about network-centric computing because if you look at it from the customer viewpoint, they are not really interested in buying it piece by piece," explains Mr Christian Thommessen, general manager for IBM network-centric computing in Europe. "We think we have some leverage here."

Similarly, Novell argues: "The value of information technology is rapidly shifting from the power of host and personal computers, to the ability of these systems to connect into the vast resources of the network.

"Businesses are using the network to run leaner and smarter, deploying information resources more efficiently and communicating more effectively both within the organisation and externally with customers, partners and suppliers."

In his keynote address to the Comdex show in Las Vegas in November, Mr Gerstner said the industry was at "the threshold of the next major phase of computing", driven by high-speed, high-bandwidth networking.

The IBM chairman argued that, despite its advantages, "the promise of distributed computing has not been fully delivered."

System incompatibilities mean it has been harder to connect individual devices while client/server computing has also been far more expensive than anyone imagined.

"It is expensive because of the complexities and also because a lot of customers – especially large organisations – are waking up to the fact that they have put the equivalent of a 1985 mainframe on the desks of every one of their clerical workers – with all the maintenance, backup and service costs now multiplied by thousands, and in some cases tens of thousands," he said.

"We have come to understand that client/server computing is, in fact, not a full-blown phase of computing. It is really the leading edge of what will be the next phase: network-centric computing."

Mr Gerstner argued that, until recently, communications technology had been lagging developments in other fields. "PCs and servers have become enormously powerful, but they communicate through the equivalent of soda straws," he quipped.

"However, that is now changing. Very powerful technologies, including ATM, will be to the next phase of computing what the microprocessor was to the current phase."

More controversialy, Mr Gerstner argues that once the communications link between the PC and the network is cheap enough, fast enough and has virtually unlimited bandwidth, "why not migrate a lot of the functions that currently reside inside the PC to the network – the applications, the data, the storage, and even some of the processing."

However, he concedes that, "the network-centric world will not replace the PC world entirely any more than the PC world replaced the mainframe world entirely."

At the moment, IBM argues, corporate 'knowledge' is spread across incompatible computer systems; it is distributed across personal computers in various departments, but powerful networks can unlock this knowledge and move it to people who can use it effectively. This drives shorter cycle times and allows teams of people to become more productive and creative.

"As companies use networks to 'push out' to their customers directly, we will see dramatic changes in the nature of competition.

"Companies that stand between a supplier and a customer will be on dangerous ground," warned Mr Gerstner.

The implications of network-centric computing, "go on and on," said the IBM chairman. "It will transform every business, organisation and institution in the world."

Louis Gerstner, IBM's chairman: 'The implications of network-centric computing will transform every business organisation and institution in the world' Picture: Reuters

■ Network management

A moving target raises problems

Few systems managers can meet all of today's challenges, says George Black

As standalone computers give way to networks, how to manage those networks effectively has become one of the industry's top priorities.

The problem is how to provide a good service to a fast-growing number of users without incurring fast-growing costs. As yet only some of the necessary answers are available.

Solutions are required at several levels. At the most basic, network managers need to monitor events and keep inventories of all their technology to ensure that usage is properly authorised and paid for. They need to form policies for upgrading hardware and distributing new software. They need to know how well the various components of their networks are performing and when they are likely to need attention.

All this is extremely hard to achieve when people are constantly adding new devices and applications to the network without the knowledge of the network manager.

Surprisingly few network managers have a firm grip on these situations. Also, there are much more elusive objectives on the increasingly prevalent multi-vendor networks than there were on isolated mainframes, minicomputers or personal computers.

A key issue is being able to manage machines and software spanning several different operating systems, including new ones which may became suddenly popular, such as Microsoft's Windows NT.

"Managing distributed organisations is a great challenge and no-one can say they have got all the solutions," says Jolanta Pilecka, software products marketing manager at Hewlett-Packard.

As technology is rapidly evolving, network management is a moving target – "the number one requirement is that networks must be built for change," observes Mr Pim Dale, product marketing manager for Sun Microsystems. The necessary software tools are becoming more powerful and more widely used, but there is still a long way to go.

Network managers need automated solutions to their problems because they cannot afford to hire more people to do this work. A recent survey across Europe by the UK market research company, Spikes Cavell, shows that, despite rating network management as a top priority of the computer department, three-quarters of companies employ fewer than 10 people to do it. Software

> Confusion over standards is hindering progress

that will take some of the strain is therefore high on their shopping lists.

Progress in network management technology has fallen behind the timetable which analysts such as Gartner Group were forecasting a couple of years ago. Some of the key products have not matured as fast as was hoped.

Hewlett-Packard with its OpenView and Sun Microsystems with its Solstice SunNet Manager, dominate the network management tools market. Other important products in the field include IBM's SystemView, also sold by Digital with various modifications in its Polycentre NetView range, and Microsoft's Systems Management Server (SMS).

Hewlett-Packard has now launched the first release of a new client/server version of OpenView called Network Node Manager 4.0 (formerly code-named Tornado). A second release of the product is scheduled for March or April.

Continued on facing page

■ The case for Network Computers

By Louise Kehoe in San Francisco, California

Strong appeal to new users

Lower-priced devices, as easy to buy and set up as a telephone at home, could bring the IT 'have-nots' on-line, argues Oracle, the software company

A new generation of low-cost 'Network Computers' designed to provide access to the Internet and on-line information services is expected to be launched this year by several computer and consumer electronics manufacturers.

These machines, proponents claim, will significantly lower the cost of getting on to the information highway, currently restricted to those who can afford to purchase a personal computer costing $2,000 or more.

Larry Ellison, chief executive of Oracle, the leading database software company, has promoted the concept of Network Computers. He maintains that a bare-bones computer is all that is really needed for Internet access and that it should cost only about $500.

The advent of the Network Computer represents "the most significant paradigm shift since the launch of the personal computer," says Oracle. In contrast to today's personal computers, which store programs and data on built-in disk drives, Network Computers will download all the software users need from computer "servers" via a network. Similarly, data created on a Network Computer will be stored remotely.

Software and hardware standards will shift away from desktop computers and their operating system software to network servers. This opens the possibility of several different types of Network Computers.

Network Computers will be very low cost devices with easy-to-use graphical interfaces, Oracle says. The essential elements of a Network Computer will be a high performance microprocessor, a few megabytes of memory, a network interface, and interfaces for input and display of information.

Among the many different types of Network Computers will be two-way pocket pagers that can send and receive electronic mail and selected information such as stock quotes. Desktop Network Computers will be designed primarily for browsing the Internet. A new generation of cable television set-top boxes will also enable a broad range of information services.

Oracle says it has no plans to manufacture or distribute Network Computers itself. The company is, nonetheless, playing a central role in bringing this new generation of products to market.

Larry Ellison, chief executive of Oracle, says the lower-cost 'network computer' (NC) represents 'the most significant paradigm shift since the launch of the personal computer'. But critics do not believe that a $500 NC will provide enough computer power to satisfy consumers' needs

Last month, Oracle contracted with Acorn Computer, a British computer technology group, to develop "reference designs" for a range of Network Computer products. These blueprints are expected to be used by several computer and consumer electronics manufacturers to bring new products to market over the next few months.

Oracle stands to make significant gains, however, if Network Computers take off, expanding the potential market for on-line information services.

The software company is developing "universal database" management software that could feed data and programs to Network Computers.

Oracle predicts that Network Computers will appeal to corporate computer buyers, as a lower cost alternative to personal computers, as well as to consumers and schools.

Initially, Oracle expects Network Computers to appeal to business users as a low-cost alternative to personal computers – "large numbers of NCs will be linked to private corporate 'intranets', based on Internet software standards," Oracle says. "The NC will peacefully co-exist on the same networks with conventional personal computers."

In schools, NCs will provide "an economically viable solution to the dream of placing a computer on every student's desk," Oracle says.

"Imagine the educational system if every student had an NC, supported by a vast server network . . . students and teachers having access to up-to-date information from news servers, the World Wide Web, other schools . . . and students having on-line access to other students. The possibilities are extraordinary and most exciting."

Network Computers could also expand greatly home access to on-line services. Today, about a third of US homes are equipped with a personal computer.

The Network Computer could bring the information technology "have-nots" on-line, Oracle argues. "A device as easy to buy and set up as a telephone that provides simple access to a multitude of services offers an extremely attractive option," Oracle says.

Oracle is working with several companies to create and support the standards that will form the foundation of Network Computer networks, the software company says.

Another key player is Sun Microsystems, the leading workstation computer manufacturer, which has developed a software development language called Java which enables the creation of application programs that can be accessed via the Internet.

Instead of purchasing application programs, as PC users do today, Network Computer users will be able to download the latest version of a Java application from a remote server, via the Internet, as needed. However, critics of the Network Computer concept, including executives at several leading personal computer software and hardware companies, do not believe that it will be possible to provide enough computing power to satisfy consumer needs for $500.

Oracle points out, however, that video game machines – such as the Sony Playstation, which incorporates a CD-Rom drive – sell for less than $500. Similarly, dedicated Network Computers will be less expensive than general purpose personal computers, the company maintains.

The costs of using a Network Computer may, however, turn out to be significantly higher than for a personal computer. Users, for example, may have to pay for the use of application programs downloaded from Internet servers.

Use of such programs may also require constant access to a network, so users could incur higher Internet access charges, measured by the minute and might also run up big telephone bills.

Moreover, Network Computer users will be dependent upon remote servers for storing their data. This raises questions about the security and privacy.

Will individuals feel comfortable storing personal files on a distant computer over which they have no control?

Whether the Network Computer can become a real challenge to the personal computer is yet to be seen. However, the lower price of Network Computers seems certain to appeal to new users.

Oracle is expected to demonstrate a prototype version of the first Network Computer this month and has said that the machines will become widely available later this year.

For large retailers, the technology of data mining – although still in its infancy – holds great promise in helping to further analyse public buying habits and enhancing supermarket services Picture by Colin Beere

■ Data mining in retailing

By Martin Banks

Valuable discoveries mined from raw data

The amount of data on retailing operations is doubling each year

The till at the checkout of the local supermarket, or any other retail establishment, is now much more than a collector of money.

Today, it is a collector of vast amounts of information. Yet to date most of that information is wasted, and its value is not exploited by the retailers. The reason is relatively simple: there is (or more specifically, has been) more of it than most computer systems have been able to manage or exploit.

Yet there is real value in such data, and it is one of the prime targets for the latest developments in database technology. This is data mining, the ability to tease out from this vast wealth of raw data information that is not known, could hardly be guessed at, yet is worth its weight in gold to the owners of that data.

According to Evangelos Simoudis, IBM's Director of Data Mining Solutions, based at the company's Santa Teresa facility in California, USA, data mining is the process of extracting previously unknown, yet comprehensible and actionable information from large databases, and using this information to make crucial business decisions.

"This," he said, "is a more pure version of data discovery. It is the discovery of data that is unknown and not based verifying an hypothesis that has already been created by someone."

To date, most organisations have set about examining and evaluating the contents of their databases on the basis of an hypothesis: often of the 'how many people buy tomato sauce *and* baked beans?' variety. Data mining, on the other hand, works on the basis of using the technology – in this case using what IBM calls 'discovery algorithms' in specially written software – to discover for itself any associations between the data.

In this way, the most unexpected associations can be found. Once found, they can be exploited to great effect. Not surprisingly, companies amongst the early adopters of data mining technology see it as a significant competitive advantage, and are therefore loath to talk in great detail, but the oft-quoted example of what data mining can achieve is the case of a large US supermarket chain which discovered a strong association for many customers between a brand of babies' nappies (diapers) and a brand of beer.

Most customers who bought the nappies also bought the beer. The best hypothesisers in the world would find it difficult to propose this combination, but data mining showed it existed, and the retail outlet was able to exploit it by moving the products closer together on the shelves.

Another example quoted by Evan Williams, IBM's Data Mining Solutions Specialist in the UK, involves a retailer with a bulky and only marginally profitable product line. Data mining showed that the company's intended plan of dropping the product might be wrong, for the customers who bought it were also consistently the outlet's biggest spenders on other products.

Instead of being dropped, this product has become the centrepiece of much of the outlet's marketing.

According to Simoudis, there are a number of reasons why companies need data mining. The first is the need to analyse more data than is currently scrutinised.

Indeed, according to Williams, though Electronic Point Of Sale (EPOS) terminals collect a vast amount of data about products and customer buying patterns, the majority is still effectively thrown away by most companies. As Simoudis puts it, "companies only analyse a small percentage of the data available, yet the amount of data available for analysis is doubling every year."

The second reason for data mining is the need to identify niche markets very quickly. In the fast-changing world of retail marketing in particular, the need to be able to identify a sales trend and react to it quickly is now imperative for some of these opportunities, while short-lived, can be very profitable while they last.

On the other side of the coin, as Williams points out, there is the classic '80:20 rule' of business – "this is where 20 per cent of a company's customers provide 80 per cent of the business," he observed.

"Identifying these 20% and what makes them tick, for example what products they tend to buy during a single trip, can be very effective in maximising the retailer's investment in stock, staff and shop layout."

> Financial services will be the next big target market for data mining

Even in this last point, as Simoudis suggests, data mining has a role to play, and IBM is already working on the linking of data mining results with multimedia store design and layout applications.

This is seen by IBM as the natural complement to the 'market basket analysis' possible with data mining, where the patterns of 'what else is bought if product X is bought?' allow store designers to position these associated products together in the store.

With multimedia design systems, new layouts can be test marketed on focus groups both quickly and inexpensively.

Although the obvious first marketplace for data mining is the retail business, the technology is already starting to be applied elsewhere. Financial services and products is the next big target market, followed by the travel business.

The technology can be successfully applied wherever there are complex and subtle associations between individual products or services that are not easy to spot, but which can have a significant impact on revenues and profitability.

There will also be the need to analyse truly huge amounts of data. Systems capable of handling up to seven Terabytes of data (about *seven million million* characters of information) are already being installed in the UK. To be effective, however, data mining solutions must be able to work with all of the data, not just samples taken from it.

"There is a valid concern," Williams suggested, "that data mining can lead to an homogenisation of retail outlets and products, where the needs of idiosyncratic customers are not considered.

"We believe this can be overcome with the powerful parallel processing computer systems now coming available.

"With these it is possible to analyse Terabytes of data, so that all the data available can be analysed for possible associations, rather than just a sample of it. In this way, the minority groups of customers, and the associations that make servicing their needs profitable, can be identified."

Data mining is still very much in its infancy as an applied technology, but its potential benefits are already starting to show themselves. There are still lessons to be learned in applying, such as whether it should be a central service (where the marketing skills tend to be) or a distributed, regional service so that outlets in the regions can react even more quickly to local market opportunities and needs.

There seems little doubt, however, that its long-term place in defining future sales and marketing strategies for high volume outlets of every type is assured.

■ Network operating systems

By Tom Forenski in Forestville, California

Challenge to Netware's dominance

More corporate buyers are considering rival Windows NT in their upgrade plans

When it comes to local area network operating systems Novell's Netware dominates the market with about a 66 per cent share – but this dominance is being challenged as the demands of client/server and enterprise computing change, and as new opportunities arise beyond the traditional office environment.

Novell's main competitors are Microsoft's Windows NT, IBM's LAN Server and Banyan Systems' Vines network operating systems. IBM's LAN Server is considered a good product but is still lacking many of the features that could significantly challenge Netware. While Banyan's Vines has not kept up with the changing marketplace and is losing market share.

Windows NT is the most significant challenger to Netware with many similar features plus its strength as an application server. Add the fact of Microsoft's aggressive promotion and pricing of Windows NT and Netware's market dominance could diminish significantly. "A lot of the new installs are Windows NT and the product is getting better with improved file and print services," says Jesse Berst, editor of *Windows Watcher* newsletter. Netware is still a better product in what it does, points out Berst, but companies installing NT get the file and print services thrown in 'free' of charge.

US market research firm Dataquest estimates that Windows NT will have 1.9m licences in 1995, compared with about 1.3m Netware licenses. What is not clear, however, is what percentage of new NT users are replacing Netware.

Windows NT is also bound to benefit from another trend. Intel's new Pentium Pro microprocessor is designed for 32-bit software, of which Windows 95 has very little.

Intel, and the Intel camp of leading PC manufacturers and software developers, now have greater incentives to move customers to 32-bit operating systems in order to justify system upgrades and to unlock the performance of the Pentium Pro. This is another strong reason for corporate buyers to consider Windows NT in their upgrade plans.

David Cappuccio analyst at US market research firm Gartner Group has a different analysis: "I see the real target of NT being the OS/400 market which shows greater business opportunities for Microsoft as companies move away from the IBM AS/400 to PC architectures."

Stan Schatt, at market research firm Computer Intelligence Infocorp, does not see a dramatic move to NT within Netware's installed base – "we conduct more than 30,000 user phone calls each month and there is nothing there that shows a big trend toward NT. Netware has about 66 percent of the market and it will lose market share slowly, just as any vendor with such a dominant share of the market can expect. But prospects for significant growth are doubtful".

> 'Even household appliances could one day be controlled with Netware'

Paul Cubbage, network industry analyst at Dataquest believes that Windows NT will help to grow the entire network operating system market. This should mean that the number of Netware users will grow with the market even if its total market share declines. "Netware is a very good product and as our analysis of the costs of running networks shows, Netware does pretty well, mainly because Novell has ensured that support personnel are well trained," Cubbage says.

Novell has changed its business strategy regarding competing with Windows NT. Under the leadership of its former chairman and CEO Ray Noorda, the strategy was to take the Windows NT challenge head on. Noorda was prepared to spend about $1bn to challenge Microsoft in virtually every area of the software business.

Noorda's Super NOS strategy called for Netware to become more of an application server with a strong suite of business productivity applications tightly tied into Netware. Novell purchased WordPerfect for its word processor application, and Borland International's Quattro Pro financial spreadsheet and Paradox database to create a suite of business applications that would compete with Microsoft's Office suite of programs. It also purchased the Unix operating system.

Super NOS was abandoned when Bob Frankenberg took over the leadership of Novell from Noorda in mid-1994. Frankenberg gradually divested Novell of the many businesses that Noorda acquired, including Unix and putting up WordPerfect for sale.

Instead of placing itself directly in the competitive path of Microsoft, Novell has chosen a more realistic approach, preferring to coexist with Windows NT and develop new products such as Netware Directory Services which will be key to winning users within large organisations.

"NT is a good product and we believe it will be very successful for Microsoft," states Novell CFO Tolonen. "We see a world in which there are heterogeneous networks with different operating systems and different hardware platforms with Netware providing the 'glue' that binds them."

Tolonen sees much bigger business opportunities in areas where there is no Microsoft competition yet. With the enormous growth of the Internet and large organisations developing their own private Internet-like networks, Novell hopes that products such as NDS will enable such large networks to greatly expand the usefulness of Netware.

Novell has also set its sights on future networking applications in the home and within products, such as automobiles.

The goal is to develop special computer chips that contain a smaller version of Netware that can be used to control or monitor a wide range of devices. This is a significant element in Frankenberg's goal of one billion Netware nodes by the year 2000.

A key part of this goal is Novell's Netware Embedded Systems Technology (NEST). This enables data to be sent over power lines including through transformers, which normally block data signals.

The development opens up healthy niche markets such as remote monitoring of electrical power usage within homes. And applications, such as Nest-enabled cars, which would be able to diagnose problems and schedule maintenance automatically.

"We don't see these as niche markets," says Glenn Ricart, senior vice-president of corporate research and development at Novell. "We see this all as networking which is our number one business. With our technology that can use power lines to transmit data, it opens up a world of possibilities in the home so that even household appliances can be controlled through Netware."

Dilemma for network managers

Continued from previous page:

Sun's SunNet Manager, its core product for network performance management, has now been complemented by others in the Solstice range, as well as products from business partners, for various management functions.

Sun's Pim Dale hopes that its new Java programming language, derived from C++, which has attracted a lot of interest among Internet users, will also be widely used on corporate networks.

"In a couple of years there will be many Java applications which will be much better suited to networks than traditional applications and will ease the network manager's task," he forecasts.

IBM's SystemView series, formerly code-named Karat, includes the NetView network management products; they at present manage several IBM platforms and will be extended to handle those of competitors.

Lewis Troke, an IBM systems management consultant, says the development of intelligent agent software will in the next year or so greatly simplify the control of multi-vendor networks.

Microsoft's SMS, launched in 1994, is part of Microsoft's BackOffice family of applications. Running on personal computers, it handles inventory, monitors the status of systems, distributes software and covers licensing. A new version which assists migration to Windows 95 was announced in August.

All of these products are still developing and it is unclear how well they will scale up to be able to handle enterprise-wide network management. At present, they are mostly deployed in a more limited environment, awaiting the new software tools which it is hoped will enable them to provide a comprehensive solution.

The Network Management Forum tries to bring together users, manufacturers and standards bodies through its Omnipoint programme. Mr Bruce Murrill, its technical director, says that system management is at present a bigger problem than network management – "the focus now is on managing the service to users. This needs a coherent method of sharing data between systems. Network management tools cannot do their job properly until this system management data is available".

Service level agreements between users and network operators depend on a mass of information about system performance and availability and problem handling. Different systems report on these functions in different ways, so that very often no overview of the network can be obtained.

The NMF is seeking ways of automating more of the functions of service management in order to improve the quality of network service to users.

Murrill complains that a large part of the industry, including many network device manufacturers, does not participate in the process of agreeing standards.

Another brake on progress is the number of standards and standards promoters affecting network management which are not well co-ordinated.

Among the most important of these standards is the Internet's Simple Network Management Protocol (SNMP), which awaits finalisation of a second version, expected in the spring.

Other relevant sets of standards include the International Standards Institution's Open Systems Interconnection (OSI), the Desktop Management Task Force's Desktop Management Interface (DMI), and the Object Management Group's Common Object Request Broker, (Corba).

Microsoft, widely criticised for being "uninterested" in industry standards, is however a powerful standard-setter in its own right and sometimes able to sway user opinion for or against such standards.

Both tools developers and users are naturally hesitant about committing themselves to substantial investments while uncertainty over future standards remains.

■ Network security and data protection

By Tom Foremski in Forestville, California

The never-ending journey

While computer networks continue to transform the way companies work, "the issue of network security is not a one-time event - it is a journey for ever," says a systems expert

As companies increase their use of networks internally and establish links to the Internet and other external networks, the problems of securing their systems and data rise enormously – and there is no easy solution.

Each time a company adds a local area network, or a gateway to the Internet, or adopts the popular distributed client/server model of computing, it increases the security risk because there are more potential areas of access to sensitive information. These risks come not only from outside the company in the form of hackers, but also from within the organisation, from curious or disgruntled employees.

One of the biggest security problems in this area, has been the fact that few business managers have recognised the security risks or taken them seriously. Yet the number of security problems has increased dramatically over the past few years, helping to prod users and the computer industry to develop and deploy more robust security measures.

The results of a survey of 1,290 information system managers, conducted by Ernst & Young late last year, show that the security message is getting through but there is still a lot of education on the issues to be done. Almost half of those taking part in the survey said that their company had experienced security problems that resulted in a financial loss. For about 20 companies, the financial loss was at least $1m.

About 40 per cent of the survey respondents said that senior management awareness of the security problems was a key obstacle to better security procedures.

"Information technology and the use of networks is causing a renaissance in the way companies conduct business but this means that business people have to realise that protecting information assets is often more important than protecting physical assets," says Fred Jones, director of information security services at systems integrator Electronic Data Systems.

Kathleen Kincaid, director of IT Security Programs at IBM, says that the media has helped to raise awareness of security problems – "there has been a lot written about security risks and the Internet for example, which has led to people calling us and asking if they might have a security problem."

But many companies start looking for security solutions only if they have had a problem themselves or have heard of a company in the same business that has problems. Mr Jones, at EDS, points out that it is difficult to add-on security to an existing information system. Security must be considered as an integral part of the re-engineering process to be the most effective.

Even in organisations where securing networks is a priority, there are many issues that have to be addressed and the solution can be complicated with many levels of options available – "there is the security of the physical transmission, security at the logical layer, and perhaps an application layer. What I've found is that at each layer people want to secure *that* layer. And within each layer, there are different alternatives for transmitting information securely," explains Ms Kincaid.

Encryption technologies and public key/private key mechanisms provide good security but there are many different ways to apply them to different parts of the information system, further complicating the issue.

The good and bad news is that awareness of security on networks is much higher and most computer companies have added security features to their software and hardware products. The bad news is that it is difficult to make all the different parts work well together.

"There is a lot of overlap and holes in the system security when using different products. It can be a real hodge podge trying to make it all work well together," says Jones. "What is needed is the establishment of key security standards and these have to be done on a global scale."

Jones adds that while there is work being done by industry consortia on various security standards, progress is slow.

Firewalls are a key method of securing networks and there are many new products on the market. Firewalls are hardware and software systems that monitor network traffic and will block network data from coming in or out, based on various criteria, such as sender ID or type of data.

But firewalls are complex to set up – for small companies with little in-house expertise, outsourcing such security measures is often the best solution.

The ideal solution is for security to become a "transparent" application – "security should not hinder the user," points out Mr Jones. "But it is vitally important that the user must be made aware of why the security is there. Staff education is a very important part of any company's security procedures."

Some products, such as the groupware software Notes, from Lotus Development, offer users a simple option to encrypt data by checking a box. Some security systems require users to memorise a list of passwords for different applications. Passwords work well but they can also easily become a key weakness in a security system. Often, users do not change them regularly, or they use simple and obvious passwords such as their birth date or the name of relatives. Passwords are sometimes even posted near computers.

Encryption technologies lie at the heart of many security measures. These use powerful mathematical operations that make it virtually impossible for an eavesdropper to decode an encrypted message on a network. IBM's Data Encryption Standard and RSA Data Security's public key encryption technology are good examples of reliable and secure encryption technologies.

But the US government limits the use of powerful encryption technologies on the basis that it will make it more difficult for law enforcement agencies to monitor criminal activities.

For example, it is illegal to export certain encryption technologies abroad – a key problem for multinational companies which are unable to use the same encryption technology across their entire enterprise.

The issue of securing networks is also one that is never solved completely. Ms Kincaid makes the point that "security is not a one-time event – it is a journey for ever."

Dealers on the Hong Kong Stock Exchange: security is becoming vital in the financial world, where 'firewalls' are a key method of securing networks. Firewalls are hardware and software systems that monitor network traffic and will block network data from coming in or out, based on various criteria, such as a sender's ID or type of data

■ Global network service

Lotus is first to use BT's new public servers

British Telecom has just set up a global public server service in partnership with Hewlett Packard, *writes Rod Newing*.

British Telecom's global communications network will allow it to provide a wide area network service. Hewlett Packard will provide BT with the servers, together with services and expertise, from a "server farm" in Bristol. This will start with between 10 and 20 HP9000 servers, with more being added as demand increases.

Lotus Development Corporation, an IBM subsidiary, was a key participant in establishing the new service which is being launched this month.

This move is part of its strategy to extend the sharing of information between companies and individuals through Lotus Notes Public Network Service. The facility is a special version of Lotus Notes designed to meet the scaleability, reliability and administration requirements of public networks, including billing services.

Applications

Organisations will be able to support business processes using BT's global network to integrate with suppliers and customers around the world, using applications located on the public servers.

A single connection to the BT servers means that organisations will no longer need to set up a wide area network within their organisation and with their customers and suppliers. This will reduce the cost of setting up applications and infrastructure for user organisations.

The number of Lotus Notes users is growing rapidly, doubling in the past six months to 4.5m. They can access the servers by point-to-point connections, such as ISDN, the Internet or from cellular telephones.

Notes security is available for each method. The applications can also be designed to be accessed by any Internet browser. Lotus Notes applications on the server will allow organisations to communicate with customers using data, images, voice, sound, video and other communications formats.

For Lotus, the deal follows similar arrangements with AT&T, Compuserve, Deutch Telekom, IBM, Nippon Telegraph and Telephone, NTT Data, SNET, Telstra, Telecom Italia, Telekom Malaysia, Unisource and US West, together accounting for 80 per cent of global data communications traffic.

Competition

By using Lotus Notes, each network will be able to communicate with the others. This is part of a Lotus plan to build a world-wide interoperable network of public networks, linked to the Internet. BT is also carrying out a trial for a similar service in Australia.

Carriers face competition from new entrants, cable operators and the Internet, causing long-distance and international communications to become a commodity.

Public networks provide them with new value added services to offer customers in order to maintain their revenue. Organisations are charged rental for their applications on the servers and users are charged for access. Lotus will participate in this revenue.

Lotus has beaten Novell, who has similar aims with its Smart Global Network, but BT admits that the Lotus deal is the first of many.

When Oracle and Sun talk about "downloading applets" from the server to their network appliances, BT will have one of the main potential sources for software.

☐ The next issue of the FT-IT Review on Wednesday, March 6 will feature converging technologies in IT and communications, together with directions in network management.

☐ For more information on key themes in future issues, there is a new FT-IT Fax-u-Back service: see Page 2 of this issue for details.

FINANCIAL TIMES
COMPANIES & MARKETS
Wednesday February 7 1996

IN BRIEF

Repsol placement realises $1.1bn

The placement of shares in Repsol, Spain's oil, gas and chemicals group, has broken all Spanish records for demand, realising Pta140bn ($1.1bn). It prepares the way for a rapid follow-up by the government with a global offering of equity in Argentaria, the state-controlled banking group. Page 16

German arm to resume payout to IBM
IBM Deutschland will, for the first time in three years, pay its US parent company an advance dividend of DM500m ($347m) amid signs that its financial position in Germany has stabilised. Page 16

Degussa makes slow start with 2% rise
Degussa, the German chemicals, precious metals and pharmaceuticals company, made a lacklustre start to its 1995-96 financial year with pre-tax profits up by only 2 per cent to DM96m ($67m) in the first quarter after rising steeply in 1994-95. Page 16

Indonesian bank to float despite low rating
Bank Negara Indonesia, the largest of the country's five state-owned banks, plans to float shares this summer, despite a disappointing rating recently from Moody's, the credit agency. Page 17

Alcatel's Mao joins vanguard in China
Alcatel Alsthom expects its business in China to account for 10-12 per cent of global sales within a decade. And overseas Chinese businessmen such as Mr Robert Mao, who has just joined the French conglomerate's main telecommunications board, will take an increasing role in international groups aiming to expand there. Page 17

Time Warner and Turner lift cash flow
Time Warner, the US media group that is in the process of acquiring Turner Broadcasting, reported cash flow 26 per cent higher in the fourth quarter at $1.04bn, on revenues up 12 per cent at $5.1bn. Turner produced a 12 per cent rise in revenues in the quarter, to $923m, but cash flow rose only 4 per cent to $142m. Page 18

Restaurant strength pushes PepsiCo up
A turnround in PepsiCo's restaurants division helped the US soft drink and fast food group report a 10 per cent increase in net profits to $565m, or 70 cents a share, in the fourth quarter. Page 18

Medeva quits Germany and sells business
Medeva, the acquisitive UK pharmaceuticals company, has withdrawn from Germany and the oncology market with the disposal of Ribosepharm, its cancer drug business, to Klinge Pharma for DM121.6m ($84m). Page 19

Brazil halts gold trading to quell rumours
In an unprecedented move, Brazil's central bank, frustrated that it has not been able to quell persistent rumours that a rogue trader has left it desperately short of gold, has stopped trading the precious metal. Page 21

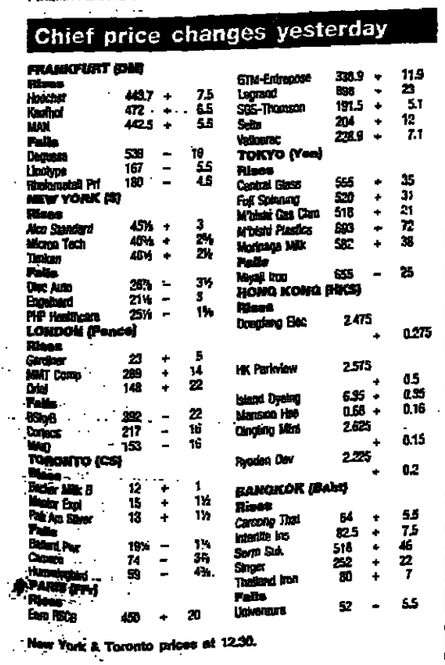
Companies in this issue

ABB	5	Heineken	16
ATR	16	Hilton Hotels	18
Aérospatiale	16	IBM Deutschland	16
Air	16	ICA	5
Airbus	5	ICTSI	17
Alcatel Alsthom	17	Jaguar	12
Alenia	5, 16	Johnson Matthey	19
Allied Domecq	13	Justine	17
Allstate	18	Klinge Pharma	19
American Airlines	1	Lockheed Martin	5
Aon	19	Lyonnaise des Eaux	5
Arjo Wiggins Apple	19	MCA	12
Avtall	18	Marathon Intl	19
Avon Products	17	Medeva	19
BAT Industries	4	Middlesex Holdings	19
BAe	5, 16	Multi Bintang	6
BBV	16	Opel	16
BSkyB	19, 12	Oriel	19
BT	1	PepsiCo	18
Baill Trading	19	Peugeot Citroën	16
Bank Negara Ind'nsia	17	Philip Morris	4
Baxter Int'l	18	QIW	17
Boeing	5	Quaker Oats	18
British Airways	1	RWE	1
British Gas	12, 13	Rank Organisation	12
Brown & Williamson	4	Reckitt & Colman	4
Canadian Pacific	18	Repsol	16
Cheung Kong	13	Ribosepharm	19
Clyde Petroleum	19	Sabena	2
Cray Research	19	Sara Lee	4
Davids	17	Scottish Widows	19
Degussa	16	Sons of Gwalia	17
Delta Jakarta	6	Sprint	18
Dick Corporation	5	Thames Water	5
Fokker	13	Time Warner	18
Ford	12	Turner Broadcasting	18
Foster's Brewing	17	USAir	1
Gardiner	19	Viag	1
Greenwich Air Serv.	18	WM Company	19

Market Statistics

Annual reports service	24-25	FT-SE Actuaries indices	28
Benchmark Govt bonds	22	Foreign exchange	23
Bond futures and options	22	Gilts prices	22
Bond prices and yields	22	London share service	24-25
Commodities prices	21	Managed funds service	26-27
Dividends announced, UK	19	Money markets	23
EMS currency rates	23	New intl bond issues	22
Eurobond prices	22	New York share service	30-31
Fixed interest indices	22	Recent issues, UK	28
FT/S&P-A World Indices	32	Short-term int rates	23
FT Gold Mines Index	28	US interest rates	22
FT/ISMA Intl bond svc	22	World Stock Markets	29

Chief price changes yesterday



FRANKFURT (DM)			
Rises			
Hoechst	443.7	+	7.5
Kaufhof	472	+	6.5
MAN	442.5	+	5.5
Falls			
Degussa	539	–	19
Linotype	167	–	5.5
Rheinmetall Prf	180	–	4.5
NEW YORK ($)			
Rises			
Alco Standard	45⅞	+	3
Micron Tech	40⅝	+	2⅝
Timken	46¼	+	2¼
Falls			
Dec Auto	26⅞	–	3½
Engelhard	21⅛	–	3
PHP Healthcare	25⅛	–	1⅝
LONDON (Pence)			
Rises			
Gardiner	23	+	5
NMT Comp	289	+	14
Oriel	148	+	22
Falls			
BSkyB	392	–	22
Cortecs	217	–	16
MIQ	153	–	16
TORONTO (C$)			
Rises			
Becker Milk B	12	+	1
Mosby Expl	15	+	1½
Pak Ao Silver	13	+	1½
Falls			
Bidard Pwr	19⅝	–	1⅝
Clonex	74	–	3⅝
Hemlo Gold	59	–	4⅝
PARIS (FFr)			
Rises			
Eurn RSCB	450	+	20
GTM-Entrepose	338.9	+	11.9
Legrand	898	+	23
SGS-Thomson	191.5	+	5.1
Sefin	204	+	12
Valeo/rec	238.9	+	7.1
TOKYO (Yen)			
Rises			
Central Glass	555	+	35
Fuji Spinning	320	+	31
M'bishi Gas Chem	518	+	21
M'bishi Plastics	893	+	72
Morinaga Milk	582	+	38
Falls			
Miyaji Iron	655	–	25
HONG KONG (HK$)			
Rises			
Dongfang Elec	2.475	+	0.275
HK Parkview	2.575	+	0.5
Island Dyeing	6.35	+	0.35
Manson Hse	0.68	+	0.16
Qingling Mtrs	2.625	+	0.15
Ryoden Dev	2.225	+	0.2
BANGKOK (Baht)			
Rises			
Carcong Thai	64	+	5.5
Interlife Ins	82.5	+	7.5
Serm Suk	518	+	46
Singer	252	+	22
Thailand Iron	80	+	7
Falls			
Univenture	52	–	5.5

New York & Toronto prices at 12.30.

Fokker moves to damp expectations of bid

By Michael Skapinker in Singapore and Ronald van de Krol in Amsterdam

Fokker, the troubled Dutch aircraft manufacturer, yesterday sought to damp expectations that impending talks with potential partners would lead to a bid for shares and bonds held by investors.

The company, which said it had drawn up a shortlist of five potential partners, said: "So far, none of the candidates has indicated it is considering a bid for Fokker's bourse-listed shares or bonds."

It cautioned its workforce that any partnership would probably lead to "drastic" cost-cutting, including a lowering of expenditure on personnel. The company's shares fell more than 8 per cent yesterday to close at Fl 4.30.

Fokker said it hoped to conclude a deal with one of the five by the time its bridging finance arrangement with the Dutch government ran out at the end of February. If no company had agreed to buy Fokker by then, parts of the business would be auctioned off separately.

At the same time, Daimler-Benz Aerospace (Dasa) of Germany, which has a controlling stake in Fokker, said it was looking for a partner to take a majority share of its Dornier regional aircraft business.

Fokker was plunged into crisis last month when Dasa announced it would end its financial support.

Mr Leo Stein, a Fokker official, said the Dutch group had received expressions of interest from 30 companies and had selected five. Fokker has refused to name the five, but four groups have said they have expressed an interest in talking to the Dutch manufacturer.

They are Samsung of South Korea, Aérospatiale of France, Bombardier of Canada and British Aerospace (BAe). Aviation industry sources say the Taiwanese government could be the fifth name on the list. However, Bombardier, Aérospatiale and BAe said yesterday they had done no more than seek further information about Fokker and BAe said it had no interest in taking over the Dutch company's manufacturing.

Bombardier, whose subsidiary, Short Brothers of Belfast, makes wings for Fokker, said its representatives were in the Netherlands for talks with the Dutch group. However, Bombardier said it did not know if it was one of the five on Fokker's list. It said: "We could be on a shortlist. We could be on a very long list."

Aérospatiale said it had only asked Fokker for more information and could not go further until it had received this.

Mr Jeff Marsh, a BAe executive who is senior sales and marketing vice-president of Aero International Regional (Air), the regional aircraft joint venture, said BAe was concerned that a Fokker collapse could depress the price of second-hand aircraft.

Mr Marsh said BAe might be interested in managing Fokker's fleet, although it would not take over any of the company's assets. He said BAe managed its own used aircraft through its Asset Management Organisation.

Fokker said one criteria used to draw up the shortlist was whether a potential buyer was "deemed capable of continuing Fokker's activities, including assembly of aircraft".

Pension row overshadows British Gas split

By Clay Harris, William Lewis and Robert Corzine in London

A radical plan by British Gas to split itself in two was overshadowed yesterday by the size of the retirement package for Mr Cedric Brown, its departing chief executive.

Mr Brown, who will retire early at the company's annual meeting, planned for April, will receive an annual pension of £247,000 ($370,580) and, for one year, a consultancy payment of £120,000. He will also keep his 695,748 executive share options.

The package led to sharp exchanges in parliament between Mr John Major, prime minister, and Mr Tony Blair, leader of the opposition Labour party. Asked by Mr Blair whether the package could be justified, Mr Major said: "That, in the private sector, is a matter for the shareholders."

British Gas confirmed plans, disclosed in yesterday's Financial Times, to split into two listed companies in 1997. Creation of a new trading subsidiary, although not an outright demerger, had been required under the 1995 Gas Act.

British Gas Energy will take over the UK supply business, which has 19m customers, and the North and South Morecambe gas fields. TransCo International will include all other exploration and production, gas transport and storage, power generation and businesses outside the UK.

Under the split, British Gas Energy will inherit £40bn of "take or pay" purchase contracts, many of which are at well above market price. The company said the demerger should help to resolve its dispute with big North Sea gas producers.

Ofgas, the industry regulator, said: "It no doubt eases regulation but it's not the ultimate answer to a regulator's prayer."

Mr Brown said: "One of the consequences [of the demerger] is that my job disappears. New management teams will be appointed in the middle of the year and they will want two young chief executives." In the meantime, Mr Richard Giordano, non-executive chairman, will become chief executive as well.

British Gas shares closed 2p lower at 242½p, valuing the company at £10.6bn. In the past year, its shares have underperformed the FT-SE 100 Index by 35 per cent.

One analyst said the demerger did not really add value for shareholders. He said: "If anything, I can see the value decreased. There is a clear signal in the statement that the dividend ain't gonna be what it was for the combined company."

British Gas repeated its intention to maintain the dividend for 1995, but said various factors might affect future payouts. After the split, TransCo initially would be the main source of dividend, with British Gas Energy paying dividends or buying back shares only in "appropriate" circumstances.

Pirc, the corporate governance consultancy which led a shareholder revolt against Mr Brown's pay last year, criticised his retirement and the demerger plans. It said Mr Brown was the fourth executive to have received a substantially enhanced salary and then left the company.

Schroders, Cazenove and Hoare Govett will advise on the demerger proposals.

The break-up ..... Page 14
Lex ..... Page 12
Feature and Editorial Comment ..... Page 11

International drinks group prompts sharp downgrades after profits warning

Allied Domecq irks investors with second warning

By Roderick Oram, Consumer Industries Editor

A second profits warning in seven months from Allied Domecq yesterday heightened resentment in the City of London towards the international drinks and retailing group, prompting sharp downgrades and fears of a dividend cut. "Almost every time they speak, the numbers go down," one analyst said as the shares closed 8½p lower at 506p.

Interim pre-tax profits would be about 20 per cent lower than last year's £403m ($620m), Mr Michael Jackaman, chairman, told the company's annual meeting.

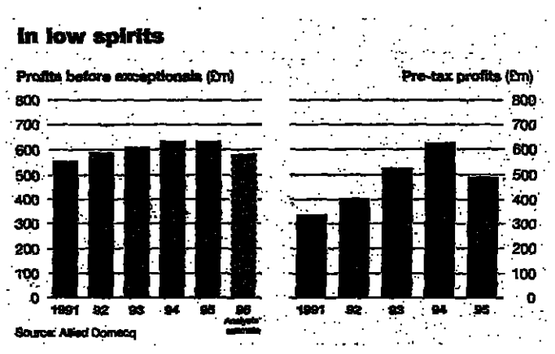
Four factors had undermined profits: US drinks sales over Christmas were under budget; European drinkers were still resistant to price increases; disposal of food businesses would dilute earnings; and Mexican and Spanish profits would be off by £25m because a change in year-end had brought two loss-making months into the period.

Second-half performance should be better as trading improved, costs were cut and one-off timing factors disappeared, he said.

Cazenove, Allied's broker, last week sent a note to clients cutting its year-end forecast by about £35m and suggesting that the news at the annual meeting might be bearish. As word leaked out about the note, Allied's share price started to slide from 527p at the beginning of last week.

After the annual meeting, brokers cut forecasts by about £50m, taking some estimates as low as £585m, for earnings of 34p a share, against pre-tax, pre-exceptional profits of £635m for the year to last August.


In need of a tonic



Earnings of 34p would give thin cover for a dividend forecast at around 26.5p against 27.6p a year earlier. Whether this would represent a cut is a moot point. The 1994-95 payout was slightly enhanced by the change of year-end and payment of a foreign income dividend.

"The stock's yielding 6.2 per cent which is high for a FT-SE 100 company and reflects nervousness about the dividend," one analyst said.

Analysts said shareholders were banking on Sir Christopher Hogg shaking up the company when he takes over as chairman on April 1.

Of the setbacks, the US was most disappointing. The group budgeted for a 10 per cent rise in Christmas sales but managed only a few percentage points.

Cheung Kong in HK$5.3bn cash-call

By Louise Lucas in Hong Kong

Cheung Kong, the Hong Kong property developer controlled by Mr Li Ka-shing, yesterday raised HK$5.3bn (US$685m) through a share placement on the colony's stock market.

The cash-raising was seen as heralding a spending spree. Cheung Kong and other big developers are eyeing a number of projects in Hong Kong related to the new airport and its rail link.

A total of 100m shares were were priced at HK$53, a 4 per cent discount to yesterday's close of HK$55.25.

The benchmark Hang Seng Index closed down 0.81 per cent at 11,391.38, mainly because of a new wave of covered warrant issues.

Cheung Kong, in tandem with affiliate Hutchison Whampoa, has been acquiring sites for development throughout the colony.

The latest, a HK$2.72bn residential lot in the New Territories, follows three other large purchases in the past five months.

The Cheung Kong placement, arranged by Hong Kong's Peregrine Capital, follows other recent share placements by blue chip Hong Kong companies.

Last month's HK$4.04bn placement by Sun Hung Kai Properties, one of Hong Kong's biggest property development companies, followed a HK$3.24bn placement of new shares by Citic Pacific, the Hong Kong-listed arm of Beijing's main domestic and international investment agency. In December, Henderson Land Development raised HK$2.2bn through a share placement and a further Y30bn ($283m) in samurai bonds.

Barry Riley

Bond funds debate whether Emu will fly

These are testing times for fans of European economic and monetary union. During the past few days European bond markets have been uneasily comparing the signs of genteel panic at the Bundesbank with the complacent high-altitude misinformation pouring out of the World Economic Forum in Davos.

The net result has been a bond market shake-out but nevertheless the general conviction remains that some sort of Emu will be cobbled together out of the ruins of the Maastricht financial convergence programme.

Partially insulated from the currency mayhem in another part of non-EU Switzerland, Mr Josef Marbacher of Bank Julius Baer in Zurich has put together a study of the implications of possible Emu scenarios.

These he lists as the hard currency outcome, in which a few core countries merge their currencies on schedule in 1999; an "Emu light" outturn in which the conditions are waived so that peripheral contenders such as Italy and Sweden are admitted; and finally a breakdown scenario of abandonment or deferral.

He assigns probabilities of 60 per cent, 10 per cent and 30 per cent respectively to these outturns. But judging by the strong run which the peripheral bond markets have enjoyed compared with German bunds in recent months – the 10-year yield differentials for Italian and Swedish bonds have both narrowed by about 100 basis points since October – the second scenario is generally given much more weight.

However, internal fiscal policy changes affect these spreads as well as the prospects for participation in Emu. And there are oddities: for example, Irish gilts have made no net progress against bunds since October, although Ireland seems likely to meet the convergence criteria, but the Belgian bond spread narrowed in January to only 45 basis points, although Belgium's borrowing levels are hopelessly too high to comply with Maastricht.

Perhaps the markets sniff a non-Maastricht political deal in which core currencies merge and economic constraints are almost entirely brushed aside. This would be a final, catastrophic defeat for the Bundesbank, snubbed so brutally by the German politicians over the terms of the 1990 internal monetary union involving the Ostmark.

> Perhaps the markets sniff a non-Maastricht political deal

There has been a sudden slippage of European ratings against dollar bonds. By January, the bund spread against 10-year Treasuries had narrowed to nine basis points compared with nearly 60 basis points in October. But the spread has jumped back up to over 40 basis points.

The yield curve has steepened as short-term rates have come down but investors have become more sceptical about the value of longer-term bonds repayable in a soft euro.

Around the markets, the possibilities are being analysed. The Bundesbank is loosening monetary policy aggressively because it fears a recession in Germany? Fair enough, buy bunds. But the latest money supply and industrial production figures have been quite positive. Hold. So is the Buba cutting interest rates only to bail out France and head off a worst-case political betrayal over Maastricht? Sell.

At one time last year the Swiss franc was riding high as a safe haven from the threat to the D-Mark, but more recently the markets appear to have concluded that in practice Switzerland will opt to track the euro, more or less. So there is no escape that way.

Mr Marbacher says that even with the best-case hard currency scenario long-term interest rates will have to bear a risk premium for several years until the credentials of the new European Central Bank have been established in practice. As for scenario two, he suggests a soft compromise could add 100-150 basis points to five-year D-Mark interest rates. The implication for bond investors would be that the core-to-periphery shift which has been in evidence would go much further.

Many fear that the outright abandonment of Emu would be highly disruptive. Interest rates would go up sharply in the soft currency EU member states. No doubt, however, the situation would be complicated by deals between individual countries – notably Germany and France.

Generally, the markets assume that *something* will happen around 1999, although whatever currency deal is struck the adjective "hard" seems likely to become less and less applicable.

THE BREAK-UP OF BRITISH GAS

■ **BRITISH GAS ENERGY** – By Robert Corzine

Setting up defence of the domestic realm

British Gas executives yesterday tackled concerns that the new consumer-oriented British Gas Energy (BGE) would be financially weak and in a poor position to compete in an open domestic market.

"It will be a pretty robust trading company," said Mr Richard Giordano, British Gas's chairman, in announcing the demerger yesterday.

In recent months there has been speculation that British Gas intended to set up a poorly capitalised company in which to dump £40bn of troublesome long-term gas contracts. But executives say that was never an option.

BGE, which is an interim name, will have revenues of £8bn, assets of £2.6bn and 22,000 employees. It will include the loss-making service division and the retail outlets as well as the company's gas trading and supply arms.

Its task, said Mr Giordano, would be to "retain a significant and profitable share of the domestic market", due to be opened to full competition in 1998, and to retain market share and improve margins in the industrial and commercial markets, which are already open to competition.

Analysts were yesterday poring over its proposed structure, which has surprised some. BGE is formed around a new subsidiary company, British Gas Trading – the vehicle into which the long-term contracts have been placed.

Executives stress that the creation of BGT is a statutory reorganisation of the company required by the new Gas Act. As such, North Sea producers cannot object to the transfer of contracts. The new entity will also own British Gas's giant Morecambe gas fields off Lancashire in north-west England. With 4.5 trillion cubic metres of gas, the two fields account for most of BGE's assets. They will also figure highly in the company's eventual competitiveness, say executives.

Mr Giordano says that the creation of the new company should enhance the ability of British Gas to persuade North Sea producers to renegotiate contracts. BGE executives will have a free hand to use Morecambe in negotiations with North Sea gas producers, some of whom have privately said they would be interested in buying part of the field in exchange for renegotiating contracts.

Morecambe, which can supply 15 per cent of the country's gas needs even in the coldest weather, is also "a powerful physical tool" that can be used to enhance the company's competitiveness, he says.

Although gas from Morecambe is among the most expensive in the UK, executives note that the field is fully developed and has one of the lowest cash costs in the offshore industry.

Ofgas, the industry regulator, yesterday welcomed the demerger, which it said should ease the task of regulation. Officials also said the creation of the new company could improve the efficiency of the supply business.

"With the City and analysts focusing on the supply business, it could help drive down costs to a more efficient level," said a senior Ofgas official.

The simpler structure could also help Ofgas to "get closer" to the supply division's cost of capital.

But the demerger will not affect Ofgas's price control review for the company's domestic monopoly.

And it is exactly that type of uncertainty which will make the company difficult to value, say analysts. Mr Giordano yesterday agreed that valuation would be tricky with so many uncertainties.

The company will, however, be "virtually debt-free, except for working capital". That, say analysts, reflects BGE's uncertain future, given the dispute over the contracts and the likelihood that it will lose substantial market share once full competition is introduced.

There are also unlikely to be any early dividends. Mr Giordano yesterday said the company would be "husbanding its cash reserves" until its future became clearer.

But will the company be too financially unstable to support its role as the main domestic supplier? After all, many analysts yesterday reckoned that shares in BGE would be confined to "the riskier end of the portfolio", and the company itself said it would probably prove too volatile for small shareholders.

Executives point to the fact that it will be two years or more before it begins to lose large chunks of market share. In addition, the discipline of a stock market listing should help to focus management's thinking.

Ofgas officials appear confident that the risks will diminish once competition has been tested and alternative suppliers have established rival supply networks.

British Gas Energy

- Largest gas supply and related services company in Britain
- 22,000 employees
- 19m customers
- Net assets of about £2.6bn
- Annual sales of about £8bn

■ **PRODUCERS**

Worst fears are held at bay

Some of the demands of producers locked in a dispute with British Gas over £40bn in long-term gas contracts may have been met by yesterday's demerger announcement, write Robert Corzine and Peggy Hollinger.

Producers had feared that British Gas would transfer the contracts into a thinly capitalised company, which could have faltered under the liabilities. However, the inclusion of British Gas's largest and most profitable gas fields, Morecambe Bay North and South, with a book value of about £2.5bn, should have eased some of their worst fears.

Nevertheless, they are likely to remain concerned about the long-term future of the company, given that they believe the potential liability of the take-or-pay contracts could be far greater than Morecambe's value. Furthermore the value is likely to be questioned by producers, as it is currently selling gas to British Gas at rates far above market price.

British Gas yesterday admitted that it had been slow in negotiations with North Sea producers to gain time to secure government approval for its plan to transfer the contracts into a new subsidiary.

A senior executive said the decision was made to slow the pace of negotiation to avoid a public row with producers. "If we had had a row with producers would we have been able to put a transfer scheme in place," he said.

The contracts lie at the heart of BG's problems which have led to demerger. The company has argued that the government's decision to accelerate competition in the gas market has left it contracted to take more gas than it needs at prices much higher than its competitors. On average it says it is paying some 20p a therm for gas, in a market where long-term contracts are being struck at about 15p.

Efforts at renegotiation have met with resistance and some producers have expressed concern about the transferral of the contracts to a new subsidiary. But producers are unlikely to be able to challenge the transfer scheme approved by the government on Monday, which cleared the way for the full demerger.

British Gas executives yesterday said it was a statutory reorganisation and if producers wanted to object, they would have to go directly to the government.

■ **TRANSCO** – By Peggy Hollinger

No backflips down on the trading floor

If British Gas thought it was adding value for shareholders by creating TransCo International, and in effect ring fencing it from gas purchase liabilities, the market was not so sure. "We are not exactly doing backflips down the trading floor," said one analyst.

Getting to grips with the valuation of TransCo will be a long process. There remain too many uncertainties, the largest of which is the forthcoming price review of TransCo's charges, due within three months.

There are also questions over the future dividend-paying capability of the demerged entity. It has seen one of its largest money spinners – the Morecambe gas fields – surrendered to oil the process of renegotiating the take-or-pay contracts now encompassed within British Gas Energy.

TransCo will be largely made up of the traditional pipelines business. With net assets of about £18bn, it will dwarf the rest of the new entity.

Exploration and production, power generation and global gas – grouped under the heading international businesses – will together control net assets worth £2.6bn. The pipeline operation is also BG's most profitable business. In the nine months to September 1995, it reported operating profits of £740m on turnover of £2.2bn.

Exploration is only marginally cash generative, according to BG, while in the business of power generation returns can take years to come through.

The prime asset of the global gas business must be its 40 per cent interest in the interconnector pipeline between the UK and continental Europe. But this has yet to be built and will require substantial investment. The company will also own some £500m of property, pegged for disposal.

All in all, the market suspected that British Gas had done little to enhance shareholder value. If anything, demerger might have eroded it, said some analysts.

Regulatory risk would increase, now that there was a clear division between the disputed gas contracts and the regulated pipeline business. This means that the disputed contracts can no longer be a potential influence on the regulator when it comes to setting price controls. Under the new plan, the contracts will be placed into BGE.

Ms Clare Spottiswoode, the regulator, has said that she would ignore the contracts issue, because its impact on the company is unquantifiable at present. But analysts said that in practice it would have been a factor in the review.

"The demerger allows even more for Ofgas, the industry regulator, to take the sledgehammer to TransCo," said one analyst. Profits would be affected and, in turn, its dividend paying capacity. This had been signalled in the company's statement.

Any harsh approach from the regulator also increases the likelihood of a referral to Monopolies and Mergers Commission. This could delay any firm conclusion on the environment in which TransCo will operate until as late as the spring of 1997, just before demerger, making valuation even more difficult.

The market was also sceptical about the prospects for the exploration and production arm, which would lose two-thirds of its estimated value with Morecambe. That move would deprive the group of substantial cash flow, which could have been used to develop the portfolio. This could subdue growth in what remained – more than half of which is located in the North Sea; and development demands could further inhibit TransCo's capacity to pay dividends.

Nevertheless, BG is adamant that E&P has a key role to play in the the new group. Without it, international expansion for both power generation and gas transportation would be difficult.

"We have significantly greater ease of entry in a country if we are able to do all those things, than if we just did one," said one BG official. Yet even BG admitted that it would have to cut operating expenses in this division before it could begin to address expansion.

In spite of reservations about the demerger plans, analysts said it was a step in the right direction, at least when it came to sorting out the take-or-pay contracts problems. For TransCo International, however, everything would depend on the regulator.

TransCo International

- Monopoly pipelines business, covering Britain's 267,000km of pipelines
- Net assets of about £18bn
- 20,000 employees
- International exploration, production and generation businesses with net assets of about £2.6bn, 50 per cent in development stage

Passing the flame

Richard Giordano (left) shakes hands with the departing Cedric Brown yesterday

Graphic by Russ Bickett

The past:

- **1986:** British Gas privatised as a single company.
- **1988:** First Monopolies and Mergers Commission inquiry calls for more openness in BG's prices.
- **1991:** Office of Fair Trading requires BG to allow more competition into the market, and suggests that the company be split up.
- **1992:** Second MMC inquiry recommends break-up of BG by 1997, and introduction of full competition in the gas market by 2000-2002.
- **1993:** Government rejects break-up recommendation, but sets a 1998 deadline for full competition.
- **1993:** Cedric Brown becomes chief executive.
- **1994: January 1:** Richard Giordano replaces Robert Evans as chairman.
- **1994: November:** Giordano awards Brown 75 per cent pay rise.
- **1995:** Gas Act requires BG to establish transportation business as a separate subsidiary.
- **1996: February 6:** BG announces demerger plan, and says Brown will retire.

The future:

- **1996 April 1:** pilot programme for gas deregulation begins in south west England.
- **1996 April:** Brown to retire.
- **1997 spring:** BG to seek shareholder approval for demerger.
- **1998:** Full liberalisation of gas market.

■ **POLITICAL AND TRADE UNION REACTION** – By James Harding and Richard Donkin

Labour blames 'indecent haste' of privatisation

Labour yesterday blamed the government for the British Gas demerger, arguing that an "unthought-out privatisation implemented with indecent haste had introduced nothing but chaos in the industry".

Shareholders in British Gas had been "thrown into doubt and confusion", said Mrs Margaret Beckett, shadow trade and industry secretary, after calling Mr Tim Eggar, energy minister, to the Commons to demand an explanation.

Mr Eggar said he saw no need for a government explanation: "Today's announcement by British Gas of demerger is a commercial decision by the company." He countered that Mrs Beckett's call for a government statement suggested that her instincts were to interfere in British Gas's decisions. "You believe that you can run British industry better than British managers can."

The government pointed out that the Gas Consumers Council and the GMB union had welcomed the proposal. The prospects for consumers proved the most contentious issue in an angry debate in the Commons, as Mrs Beckett asked the government "to give an absolute assurance that the interests of consumers will be protected". The concern echoed by Labour backbenchers was that British Gas liabilities on take-or-pay supply contracts would eventually have to be met by the consumers.

Mr Eggar said: "British Gas itself is confident that it will be able to improve service to customers and lower prices."

The debate followed an angry exchange between Mr Tony Blair, Labour leader, and Mr John Major, prime minister, over the severance package for Mr Cedric Brown.Mr Blair compared Mr Brown's award with the advice from Mr Michael Heseltine, deputy prime minister, in which he condoned late payment of bills to business creditors: "One group of hard-working people told to wait for their money, the other given by your government a licence to print it!"

On the question of pay, Mr Dennis Skinner, Labour MP for Bolsover, asked Mr Eggar, who is standing down at the next election, if he would be joining the British Gas board.

Mr Eggar replied: "I've not yet received a job application form from British Gas and, if I did, I wouldn't fill it in."

Unison, the public services union which has 23,000 members in the company, said: "The government has fired a bullet and watched it explode in British Gas." It said, however, it received no pleasure from Mr Brown's departure.

The GMB general union which has 30,000 members at British Gas, welcomed the decision to divide the business. Mr Donald Macgregor, national secretary for gas workers, said: "British Gas is confident that this re-organisation will not mean the return to the redundancies of previous years and this will reassure our members that their jobs are safe."

In spite of the criticism of Mr Brown's pay, it was clear yesterday he had not lost the respect of the union. Mr Macgregor said: "Despite the buffeting he has personally taken for the failures of the privatisation, he is widely respected by the workforce for his years of experience and commitment to the company."

The GMB could not, however, resist a parting dig, referring to the pig it had named Cedric and used in protests. The union said: "He will receive a large bucket of potato-peelings tonight – he will need something to reassure him that an early retirement would not reduce his rations."

Sir Denis Rooke, the former British Gas chairman who headed the company when it was privatised in 1986, said yesterday circumstances had changed since he retired seven years ago.

But he added: "It is astonishing that Her Majesty's government cannot only move the goalposts but also change the game and even play the wrong way across the field."

There had never been any suggestion, he said, that the shape of British Gas would be anything other than a national company with a vertical structure.

If the company had not signed the early long-term purchase contracts, the North Sea fields could not have been developed, Sir Denis added.

Clay Harris

■ **SHAREHOLDERS' REACTION** – By Norma Cohen, William Lewis and Antonia Sharpe

Institutional concern over possible dividend cut

Shareholders in British Gas gave a lukewarm reception to the company's announcement of a demerger yesterday, saying it heightened the possibility of a dividend cut.

"It used to be that a corporate break-up was meant to enhance shareholder value. Now it may be just a ploy to cut the dividend," one shareholder said. The share price yesterday slipped 2p to 242½p.

Institutional investors were concerned at the company's comments that while it would maintain the 1995 dividend, "there are a variety of factors or events which might affect future dividend decisions".

News of the demerger had been expected by many shareholders. However, several said that they were taken aback by the decision to create a separately listed new company to hold the contentious "take-or-pay" contracts.

The value of creating the new company, they said, crystallised British Gas's exposure to the take-or-pay contracts. It was the announcement that the net assets of British Gas Energy would be about £2.6bn.

"You now have a maximum for corporate liabilities," said one relieved shareholder, noting that brokers' forecasts had ranged from £1.5bn to £4.5bn.

Also, shareholders said they were encouraged by the implied promise to reduce the scope of British Gas's international development activities, with a concurrent "significant" reduction in development costs.

"We and other shareholders have expressed concern over the capital activities," one shareholder said, pointing out that the departing chief executive, Mr Cedric Brown, had historically favoured wide-ranging international development.

Institutional investors who had warned that Mr Richard Giordano's continued role as chairman of British Gas was dependent on Mr Brown's successor being announced welcomed yesterday's news.

"I take no pride in the personality thing, but the deed had to be done," one shareholder said. "Now it has been, I hope to God that Cedric is left alone".

Other shareholders expressed relief at Mr Brown's departure, saying that the very public debate over his remuneration package had been distracting.

But Mr Brown's departure may not end the debate about the corporate governance of British Gas.

Several shareholders expressed concern about Mr Giordano's role as chairman and chief executive, which is expected to be temporary.

News that TransCo would retain most of the existing British Gas debt, including all of its public debt obligations, triggered a rally in British Gas bonds. British Gas has about £3.5bn of outstanding sterling and dollar denominated bonds.

Mr Frank Knowles, director of fixed-income research at Lehman Brothers, said bondholders were relieved that they would be part of the stable and cash-generative business of British Gas, and not the trading side with its potential future liabilities regarding long-term gas contracts.

However, Mr Knowles said British Gas bondholders still faced risks because of the likelihood that TransCo might seek to enhance shareholder value at the expense of bondholders.

Yesterday Standard & Poor's, the credit rating agency, placed British Gas's double-A minus long-term rating on review for an upgrade or downgrade pending consideration of the demerger. Rival agency Moody's had already placed its British Gas rating of A1 on review for a downgrade last month.

EUROPEAN NEWS DIGEST

Adam Opel upbeat after rise for year

Adam Opel, the German carmaker owned by General Motors of the US, lifted net profits for last year above the DM307m ($209m) earned in 1994, despite exchange rate losses of about DM300m caused by the strength of the D-Mark, Mr David Hermann, chairman, said. Turnover was marginally higher at DM25.9bn. He said the final profit for 1995 would be between the previous year's result and DM400m. He expected profits to grow further in 1996, although the overall market would show scarcely any increase.

Mr Hermann attributed the rise in profits from increased output, the restructuring of production plants and greater attention to global markets. Opel is about to open an assembly plant near Bombay, to add to those in Turkey, Egypt, Hungary, Taiwan, Indonesia and Poland. It was also selling successfully in Japan. Further investments were planned in south-east Asia and Poland.

In Germany, he said Opel's market share edged up from 16.6 per cent to 17 per cent, with a further slight rise expected in 1996. Its new vehicle registrations were 5.6 per cent higher, against a rise in the German market of 3.3 per cent. In line with its continuing investment programme, Opel will spend DM5.5bn on its German plants up to 1998. Last year's investments totalled DM1.5bn. *Andrew Fisher, Frankfurt*

Air may launch first jet

The three European companies which make up the Aero International Regional (Air) aircraft venture are considering launching their first jet. British Aerospace, Aérospatiale of France and Alenia of Italy started Air at the beginning of this year by combining their sales and marketing organisations.

British Aerospace and ATR, owned by Aérospatiale and Alenia, said they would continue to make their existing products themselves. However, Mr Henri-Paul Puel, Air's chief executive, said yesterday the venture would begin market research this spring on the feasibility of building a 70-seat twin-jet aircraft. A 85-seat version could also be built.

Mr Puel said he thought there would be interest in the jet in the US and Asia and that if they went ahead, the development cost was likely to be $1bn. Air is also bidding to be the western partner in a Chinese and South Korean project to build a 100-seat jet. If Air wins the right to participate in the project, Mr Puel said the cost would be $2.2bn. *Michael Skapinker, Singapore*

Ferfin, Montedison advance

Ferruzzi Finanziaria (Ferfin) and Montedison, the linked Italian holding companies which returned to net profit in the first half of 1995, yesterday released preliminary figures for the full year showing that turnover and gross operating profits were up significantly on 1994. Ferfin's turnover was up 9.4 per cent at L26,265bn ($16.7bn) and gross operating profit rose 17.7 per cent to L3,623bn. Montedison, with interests in agribusiness, energy and chemicals, increased turnover by 13.2 per cent to L24,360bn, while gross operating profit was up 16.4 per cent at L2,955bn. *John Simkins, Milan*

■ Cofir, the Madrid-based holding company controlled by Italian financier Mr Carlo De Benedetti, has increased by Pta1bn ($8m) the capital of Dagesa, the supermarket chain in which it has an 80 per cent stake. The move will finance new acquisitions. *John Simkins*

CORRECTION

Jürgen Schrempp

A picture in yesterday's edition labelled as Mr Jürgen Schrempp, Daimler-Benz chairman, was not Mr Schrempp. We apologise for this error.

Record demand helps Repsol issue realise $1.1bn

Warm reception for Spanish oil, gas and chemicals company augurs well for coming global offer for shares in Argentaria

By Tom Burns in Madrid

The placement of shares in Repsol, Spain's oil, gas and chemicals group, has broken all Spanish records for demand. It prepares the way for a rapid follow-up by the government with a global offering of equity in Argentaria, the state-controlled banking group.

The Repsol issue, which cut the government's stake from 21 per cent to 10 per cent, realised Pta140bn ($1.1bn), about Pta10bn more than expected.

Demand for the 33m Repsol shares that were placed totalled Pta1,129bn. The issue was eight times oversubscribed in its domestic retail tranche, 12 times in the UK, 15 times in continental Europe and eight times in the US.

"We have never, ever seen anything like this here," a Madrid banker said yesterday. Pending final allocation of the equity, the "green shoe" or over-allotment option of 4m shares was due to be exercised today in favour of UK and continental European investors.

All the institutions will inevitably be allocated far fewer shares than they bid for. Officials said Repsol was expected to reward the loyalty of existing institutional shareholders and to favour institutions which "showed a lot of interest in the road shows and really wanted the stock".

In the domestic retail tranche, a sliding scale was likely to be applied favouring small investors, in order to spread ownership as widely as possible. Those seeking to invest Pta100,000 in Repsol are likely to have their demand almost wholly met, while retail investors who had bid for Pta10m-worth are likely to end up with only 5 per cent of what they had sought.

The warm reception for Repsol was underlined on the Madrid market yesterday, where the group's shares put on 1.38 per cent to close at Pta4,395. The price for retail investors had been set at Pta4,147 a share, representing a 4 per cent discount on Monday's weighted average price and at Pta4,335 for the institutional tranches.

The success of the Repsol placement augurs well for the forthcoming global offering of 32.2m shares in Argentaria, when the government is due to reduce its stake from 50 per cent to 25 per cent.

Analysts said despite the difference between the highly-prized Repsol stock and that of Argentaria, they expected a knock-on effect from the Repsol placement that would lift demand for Argentaria.

The subscription period for Argentaria shares is likely to commence towards the end of the month. It will be globally co-ordinated by Morgan Stanley of the US and by Argentaria, together with the domestic banks, Santander Investment and Banco Bilbao Vizcaya.

Hungary oil group in trading row with subsidiary

By Kester Eddy in Budapest

Sales and profits at Mineralimpex, the former Hungarian state oil and gas import and export company owned by Mol, the partly privatised oil group, have collapsed amid recriminations between the subsidiary and its owner.

Mineralimpex profits fell from Ft300m ($2m) in 1993 to a little more than Ft20m ($140,000) last year, according to provisional figures. Sales nearly halved from Ft70bn in 1994 to little more than Ft40bn.

After inheriting a privileged position from communist days, when trading was kept separate from production, Mineralimpex dominated Hungary's international gas and oil trading until about 1993. Since then, however, contracts have been progressively transferred to Mol, Hungary's biggest company by sales, and a Mol joint venture with Gazprom of Russia.

In 1994 the government decided to transfer ownership of Mineralimpex to Mol. A six-month power struggle ensued, ending, on paper at least, with the transfer of ownership from the State Holding Company to Mol last May.

Mr Gyorgy Szabo, then chief Mol executive, said the move was regarded as essential to maximise the value of Mol, then being prepared for partial privatisation, by giving it control of international trading. Mol, which loses money on imported gas because of government controls on domestic prices, saw Mineralimpex's foreign trading activity as easy money. "Just one signature, and a million dollars commission," Mr Szabo claimed.

However, the battle is not over. "The problem is that, although Mol is the 100 per cent owner, it still considers us as a competitor," said a Mineralimpex official. "There is frustration and uncertainty over who should do what. This is a valuable asset. You would think [Mol] would see it is in its own interest to exploit it."

The man seen as the principal defender of Mineralimpex before the transfer of ownership, Mr Laszlo Pal, became Mol president in September shortly after being sacked as Minister of Industry for opposing power sector privatisation.

Mr Pal said: "Mol's entire organisation is being modernised and Mineralimpex is being discussed as part of that. Mol has decided to maintain ownership of Mineralimpex, and not to privatise it for the time being.

"Within a few weeks the new profile should emerge. It will not work as a competitor, but as an independent company integrated in Mol."

However, Mr Szabo, now an independent consultant but still on the Mol board, does not share Mr Pal's confidence. "Mol may wish to keep ownership, but the state owns 58 per cent of Mol," he said.

Heineken finds strong global brew

Dutch group's export business is highly profitable, writes **Roderick Oram**

Delve into the curious case of Heineken's Japanese beer cans and you learn a lot about the Dutch brewer's global ambitions and the three main tools at its disposal.

The incident shows how Heineken uses brewing partners abroad, its ultra-low cost breweries in the Netherlands and its well-known brand to maintain its position as the most international of brewers.

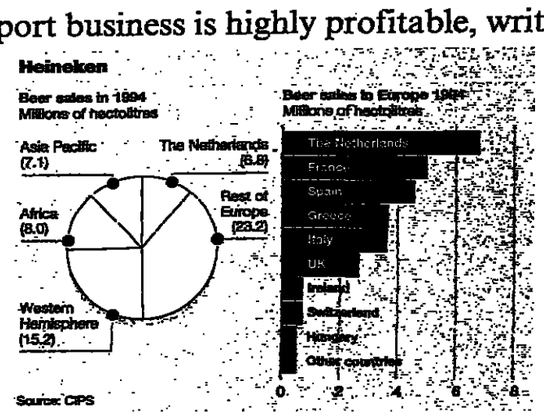
Some competitors, notably Anheuser-Busch and Miller Brewing of the US, are spending heavily to try to match its global reach. Heineken has a network of brewing and distribution relationships spanning some 170 countries, and more than 50 per cent of its sales are already outside Europe.

In Japan, Heineken produces its lager through a 51:49 joint venture with Kirin, the Japanese brewer, and sells it in kegs and bottles. The lager had also been sold in cans until last year, when it ran into some unexpected competition – from itself. Large Japanese retailers were importing cans of Heineken brewed elsewhere and selling them at a much lower price than those produced locally.

The uncompetitiveness of local cans reflected the complexity of Japanese distribution, with many people taking a profit between brewer and retailer. But the fact that Heineken was able to win back business by shipping cans of Dutch beer direct to the retailers was testament to its low-cost production at home.

After strenuous efforts to cut its Dutch costs, Heineken has developed a highly profitable export business. Between 1985 and 1995, raw material costs fell from 11.75 per cent to 7.2 per cent of sales, personnel costs dropped from 23 per cent to 19.1 per cent and packaging from 15 per cent to 13 per cent, according to a study by Mr John Wakely, Lehman Brothers' drinks analyst in London.

Heineken ploughed some of the savings into advertising and marketing abroad to build its brand's image as a premium product for which it could charge higher prices. Selling costs have risen from 9.6 per cent to 16.8 per cent of sales and are likely to rise another percentage point by next year, Mr Wakely estimates.



The Dutch brewer spends, for example, about $5 a barrel on advertising in the US, compared with $3 spent by Anheuser-Busch, the market leader. Playing to the cachet of the imported product, a bottle of Heineken costs about 40 per cent more in the US than in the Netherlands, and appreciably more than Anheuser-Busch's domestic Budweiser.

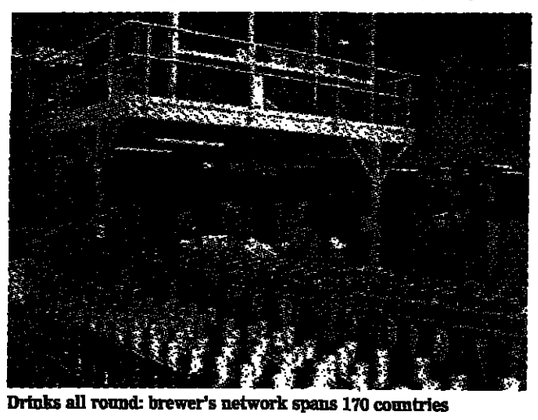
Consequently, exports are highly profitable for Heineken. They account for only about 10 per cent of its sales volumes but about 40 per cent of profits, Mr Wakely estimated. Exports from Holland last year exceeded 6.2m hectolitres, up from 5m hectolitres two years before, with many markets including the US and expanding Asian countries accounting for the increase.

With exchange rates the main determinant of export profitability, Heineken watches no rate more closely than the guilder to the US dollar. "We can live with Fl 1.50 to the dollar and we are very happy at Fl 1.80," Mr Karel Vuursteen, Heineken's chairman, said.

At a current rate of Fl 1.58, Heineken appears to be pushing its luck, but the company believes constant productivity improvements will keep US exports profitable.

Moreover, each increase in marginal volume of beer exported at the right price is very profitable. Thus, Heineken signalled at an analysts' meeting last year that its goalposts had moved. It opens up markets with exports before switching to local licensed production when volume justifies. But exports are so attractive that the threshold has risen sharply for many markets.

In terms of long-term foreign investment, east Asia is one of the most important regions for Heineken. Its vehicle is Asia Pacific Breweries, a 60-year-old joint venture with Fraser & Neave, the Singaporean brewer of Tiger beer. APB plans to spend almost $500m over the next three years building and buying breweries in the region, particularly China.


Drinks all round: brewer's network spans 170 countries

But for all the excitement of emerging markets, some of Heineken's stiffest challenges are in mature European markets. Germany, suffering from severe over-capacity among its 1,000 brewers, is the most difficult and costly to crack.

Heineken's strategy is to build its brand as an imported premium product for young drinkers and secure distribution initially in pubs and restaurants in only a dozen or so of the main cities.

"We try to discipline ourselves to talk not about the number of hectolitres we sell but the number of pubs we serve," Mr Vuursteen said.

He added that Heineken's losses in Germany are running at less than the Fl 30m ($18.2m) a year some analysts estimate, but the red ink will flow for a few more years while the company invests in the market.

The UK presents a completely different challenge – it is the only foreign market where most of Heineken's main product lacks premium status. The bulk of its beer is 3.4 per cent alcohol and therefore is classified as a standard lager, an extremely price competitive category.

Heineken and Whitbread, its UK licensee, are addressing the problem with the 5 per cent Export beer, which is the same strength as sold elsewhere in the world. "We are making quite sound progress" in the premium category, Mr Vuursteen said.

London analysts are intrigued by the relationship between the two companies, because Whitbread is also the UK licensee for Interbrew's Stella Artois, the dominant premium lager.

"I don't believe there is any cannibalism between Export and Stella," Mr Vuursteen said. "We have a very happy marriage with Whitbread. They have done a good job for us."

Fortunately for Heineken, the UK is not subjected to quite the same import issues of status or costs as the US and Japanese markets.

IBM to get payout from German unit

By Judy Dempsey in Berlin

IBM Deutschland would pay its US parent company an advance dividend of DM500m ($340m) – the first in three years – amid signs that its financial position in Germany had stabilised, Mr Edmund Hug, chief executive of IBM Deutschland, said yesterday.

It would also start to focus on the more general consumer market in a bid to win a slice of the market in this high growth area. "The consumer division, set up last year to cater to the needs of this sector, is expected to be the driving force of this activity," Mr Hug said. Mr Hug has overseen a radical restructuring programme aimed at reducing costs and increasing efficiency, which entailed reducing the number of full-time employees from 17,500 to 15,000.

Net profits for last year amounted to DM900m, the same as the previous year. Sales increased 2 per cent to DM1.5bn over the same period, following adjustments which included the transfer of IBM's former semiconductor production to a joint venture with Philips, the Dutch electronics group, and the sale of another production unit to Mayer & Cie.

Exports rose 7 per cent to DM2.6bn, including a 13 per cent rise in export sales from its facility in Mainz, Rhineland Palatinate, where IBM's European centre for data-storage technologies is based. Domestic sales rose 1 per cent to DM9.3bn.

Investments in fixed assets climbed 8 per cent to DM800m, including outsourcing, multimedia and consulting. Mr Hug said IBM would also focus on network-centric computing to provide customers with integrated network services, which include data, voice, imaging and video.

The services division reported a 16 per cent increase in sales, which Mr Hug said was well ahead of comparative expansion rates in the sector.

In outsourcing, IBM doubled its year-on-year income, establishing itself as Germany's market leader. However, the personal computer market remained flat.

● ZDF, the German public broadcaster, has signed an output deal with Hearst Entertainment of the US that includes German rights to 50 TV films to be made over the next four to five years, Reuter reports from Berlin.

The deal also includes German resale rights for new films, a package of old made-for-TV movies and broadcast rights for Hearst TV shows.

Weak December holds back Degussa

By Andrew Fisher in Frankfurt

Degussa, the German chemicals, precious metals and pharmaceuticals company, made a lacklustre start to its 1995-96 financial year with pre-tax profits up only 2 per cent in the first quarter, to DM96m ($65.3m) from DM94m a year ago.

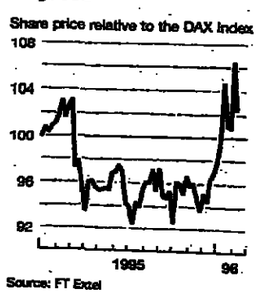
Mr Gert Becker, chairman, who retires in March, said the first two months of its current year to September 30 had produced a 10 per cent profits improvement. However, December had been poor, with most of the gains eroded. This left turnover in the first three months 19 per cent lower at DM3bn; excluding precious metals trading, the decline was 10 per cent.

Mr Becker said business had returned to normal after December, which he described as an "air pocket".

For the quarter, sales at the chemicals division were 8 per cent lower at DM1.2bn, with volume down 6 per cent from the strong first quarter of last year. Exchange rate movements pulled down sales by two percentage points, with deliveries affected by the French strikes in December.

Chemical earnings were down slightly. But profits showed a "pleasing improvement" on the pharmaceuticals side, where sales were 2 per cent lower at DM530m. Profits in the dental division were higher, while the Asta Medica unit reported markedly better results. Metals sales were 31 per cent lower at DM1.27bn, with profits also down.

Mr Becker said Degussa hoped to remain at roughly the same profits level as last year and was confident of producing another good result. In 1994-95, profits before tax rose 44 per cent to DM404m. It has already announced a dividend rise from DM10 to DM12.50 a share.



To strengthen its pharmaceuticals activities, Degussa will ask shareholders at the annual meeting in March to authorise DM40m of new capital on top of the present authorised capital of DM80m. At yesterday's share price – down by DM19, or 3.4 per cent, to DM539 on the disappointing figures – this would be worth DM431m.

Mr Robert Ehrt, the finance director, said the new shares would be available to exchange for assets to expand pharmaceutical activities.

He said capital spending would total around DM600m this year, with 56 per cent to be invested outside Germany. The investments, compared with DM482m last year, would mainly be used to increase chemicals capacity.

Philippines cargo group enjoys 57% profits rise

By Edward Luce in Manila

International Container Terminal Services (ICTSI), the Philippines' largest cargo handling company, saw net profits leap 57 per cent to 320m pesos ($12.2m) on the back of the country's rapid trade growth in 1995. However, the result was lower than expected by most analysts, who had forecast profit growth of about 70 to 80 per cent.

The company, which has stakes in the recently-privatised port of Karachi – Pakistan's largest – as well as in Veracruz, the largest port in Mexico, and Buenos Aires, said improved operating efficiency and the growth of 20 equivalent unit (TEU) traffic were behind its good results.

The 30 per cent growth in Philippine trade helped boost the company's TEU handling to about 750,000 last year, 11 per cent higher than in 1994. The company maintained its 75 per cent share of the Philippine market.

The installation of a fifth, 300m-peso berth at its container terminal in Manila, and the introduction of more automated work practices improved efficiency by 12 per cent to 2,600 pesos per TEU. Administrative and operating costs rose 7 per cent to 426m pesos.

Analysts, however, say the company's rising debt-equity ratio, blamed on high capital outlays on its three overseas ventures, gives some cause for concern. At 130 per cent, ICTSI's gearing ratio is considered too high.

"ICTSI has run up a lot of debt," said Gina Dipaling, a researcher at Asia Equity Securities in Manila. "However, if it can overcome the burden of high interest payments, the company's long-term outlook is very bright. It is the most efficient operator in the Philippines and trade growth looks set to continue rising."

ICTSI's shares, which are trading at a p/e of 21 – a 20 per cent premium to the market – closed unchanged yesterday at 16 pesos.

Alcatel hitches wagon to Chinese growth

The People's Republic is expected to generate 10% of sales by 2005, says Tony Walker

Mr Robert Mao, the first Chinese member of Alcatel Alsthom's main telecommunications board, bears a famous surname, but similarities with China's late Chairman Mao Zedong end there.

The urbane Cornell and MIT-educated Mr Mao represents the new breed of overseas Chinese businessman which is assuming greater responsibilities in large international corporations as the China market grows and companies such as France's Alcatel globalise.

From his domicile in Taiwan, Mr Mao, 52, will oversee Alcatel's "greater China" operations, including the mainland, Taiwan and Hong Kong. In turn, the company will divide China into two main administrative centres – Beijing and Shanghai – and 12 regions.

Mr Mao says the group "definitely" plans to increase its manufacturing presence in China and intends to become leader in its business sectors. "There is no doubt this is a big, big market and getting bigger," says Mr Mao.

His appointment to the board in the restructuring of Alcatel's activities, which came into effect last month, is part of the conglomerate's attempt to sharpen further its focus in China, where sales topped $2bn last year, or about 5 per cent of global sales of $36bn.

The telecommunications board, reflecting the company's global interests, includes four French nationals, five non-French Europeans, one American, an Australian and a Chinese.

Alcatel claims to be the leading supplier of telecommunications and power plant equipment in China, and market leader in electric railway transport. But it wants to intensify its involvement in China, based on about 20 joint ventures formed between 1983-96.

Mr Serge Tchuruk, chairman and chief executive officer of Alcatel, said in Beijing recently that within a decade the company's China business would account for between 10 per cent and 12 per cent of global sales. Alcatel's future – and especially that of its telecommunications divisions – is tied, therefore, to the continued rapid growth of China's economy.

Reuter

Robert Mao: 'This is a big, big market and getting bigger'

Alcatel Alsthom is the parent company of the 100-per cent owned Alcatel Telecom and Alcatel Cable; Cegelec, the electrical engineering business; and Saft, the battery maker. It has 50 per cent of GEC Alsthom, which supplies power and transportation equipment, and 44 per cent of Framatome, the nuclear power unit.

All these subsidiaries and affiliates are active in China. Framatome, for example, led the consortium which built the Daya Bay nuclear power station in southern Guangdong province, near Hong Kong, and has the commission to construct stage two. GEC Alsthom has two joint ventures in China, and 16,000MW of generating capacity in operation, under construction or on order.

But telecommunications now leads the way. Sixteen joint ventures formed between 1983 and 1996 span virtually the entire range of modern communications, including digital switching, network management, integrated circuits, fibre-optic cable and digital mobile communication systems.

Alcatel Alsthom has invested about $160m on the mainland, of which about $100m has gone into telecommunications, with the balance shared between energy and transportation. In 1995 alone it ploughed $100m into its China operations and expects to maintain this level of investment for the rest of the decade.

The centrepiece of the company's involvement in China is its 32 per cent stake in the Shanghai Bell Telephone Manufacturing Co (China's Ministry of Posts and Telecommunication has 60 per cent and the Belgian government 8 per cent), whose output is forecast this year to be 5m lines from its new $170m factory in Shanghai.

Alcatel is using Shanghai Bell, established in 1983, as a springboard for other ventures. Shanghai Bell is a partner, for example, with Shanghai Belling Micro Electronics producing integrated circuits and with Shanghai Bell Alcatel Mobile Communication for digital mobile networks.

Mr Tchuruk says Shanghai Bell, voted the most successful joint venture in China in 1995 in a China Daily poll, will serve as a model for Alcatel Alsthom's continued expansion. He sees the greatest potential in broadband wireless communications and intelligent networks; nuclear power and the provision of clean burning coal technology; and fast trains and the automation of China's transport network.

Mr Mao will co-ordinate Alcatel's disparate telecommunications activities. He expects to spend about six months of each year in China travelling between the company's regional centres. This will be necessary, he says, because purchasing decisions are increasingly being devolved to provincial and municipal level.

In the new scheme of things, Beijing, Shanghai, Taipei and Hong Kong will be Alcatel's "main operating points" for its telecommunication business, Mr Mao says. Beijing is where important policy decisions are made, Shanghai is where innovations take place, Hong Kong is where capital funds are mobilised for investment in Chinese infrastructure and Taipei is the headquarters of an important Alcatel subsidiary.

On the sensitive issue of his Taiwanese origins and domicile, Mr Mao says there is no reason to believe Beijing will take a dim view.

"After all," he says, "to be politically correct, Taiwan is part of China, so I don't think anyone in Beijing would raise that as an issue."

Indonesian bank plans float despite low rating

By Manuela Saragosa in Jakarta

Bank Negara Indonesia, the largest of Indonesia's five state-owned banks, plans to float later this year, despite a disappointing rating recently from Moody's, the credit rating agency. It has not been decided how much of the bank will be sold.

Mr Willy Sambalao, president director of BNI, was quoted by the business daily Bisnis Indonesia as saying that he hoped the bank would list on the Jakarta exchange in July.

However, it remains to be seen whether the bank will fulfil this aim since a large number of new issues are expected on the Indonesian market this year, which will make a successful privatisation more difficult. These include London Sumatra, which operates a palm oil plantation.

Last year, Indonesia was forced to halve the size of its initial public offer for Telkom, the domestic telecoms company, and cut the price of Telkom shares to below their initial range. The government is keen to ensure that the next privatisation will go smoothly.

Mr Sambalao's statement comes only a few weeks after Indonesia's state-owned banks were given low ratings by Moody's Investors Service. The agency said state banks would have to grapple for several years to resolve current problem loans.

Moody's allocated BNI a financial strength rating of D-plus, noting that BNI has "a reputation of being managed professionally" but that its main challenge was "to balance its need to support government policies and activities while maintaining commercial standards in order to meet the competitive threat from private banks".

In the newspaper article, Mr Sambalao shrugged off the rating's significance, noting that a D-plus rating had also been given to such big Japanese banks as Sakura and Tokai, and that investors would be looking for growth and profit potential. He said BNI posted profits of Rp405.8bn ($177m) in 1995, up 31.3 per cent from a year earlier. The paper did not say whether profit was net or gross.

Moody's said there were "qualitative differences in the credit cultures of the various [state] banks", that lending margins had been further depressed by "a large level of loans which have been restructured", and that the banks "are still burdened by a significant level of non-performing assets".

NEWS DIGEST

Sons of Gwalia doubles at halfway

Sons of Gwalia, the acquisitive Australian goldminer which is one of the bidders for Perth-based Gasgoyne Gold Mines, yesterday announced an after-tax profit of A$16.6m (US$12.5m) for the six months to the end of December, almost double the A$8.4m reported for the first half of the previous year.

The company said gold production reached 137,526 ounces, a record, and that revenues from gold sales were A$91.5m. The average price received for gold sold during the first half was A$660 an ounce, while the average cash costs for production were A$338 an ounce.

The company added that, based on current projects, it expected to meet its previously-announced production target of 280,000 ounces of gold for the year. Pre-tax and post-tax profits were forecast at A$46m and A$30m respectively. However, with gold shares generally marked down yesterday, Gwalia lost 15 cents, to A$8.90.

Gwalia's bid proposal would see it merging with Burmine, another junior miner, and making an offer for Gasgoyne, giving it a much-enhanced interest in the prospective Yilgarn Star region in Western Australia. However, US-based Coeur d'Alene Mines is also making a rival bid for Gasgoyne.

Nikki Tait, Sydney

Davids plans to bid for QIW

Further evidence of rationalisation in Australia's grocery sector became apparent yesterday after Davids, the New South Wales-based grocery wholesaler, said it was seeking authority from the competition authorities to make a takeover bid for Queensland's QIW. QIW owns the local Spar food retail business, as well as food service operations.

If it gained approval, Davids said it would offer three of its own shares for every two in QIW, valuing its target at about A$107.5m (US$81m). Davids added that it expected to report interim profits before tax and abnormals of more than A$45m.

Nikki Tait

Foster's builds winemaker stake

Foster's Brewing Group, the Australian brewer, said yesterday that it now controlled 28.6 per cent of the shares of Mildara Blass, the winemaker for which it launched an A$482m takeover bid last year. The offer is being extended until February 23.

Nikki Tait

Avon Products acquires Justine

Avon Products, the US-based company, is to acquire the privately-owned South African beauty products manufacturer and direct marketer Justine for an undisclosed sum, Justine said.

Justine would continue selling prestige segment products under its own name and would begin marketing a range of complementary Avon products "priced to reach every South African customer", it said.

Reuter, Johannesburg

S Korea shows strong growth

Net profits of South Korea's listed companies rose 53 per cent in 1995, largely as a result of brisk sales in manufacturing, according to Tong Yang Securities.

In a preliminary report on 522 of 565 listed companies whose fiscal year ended in December, Tong Yang said a combined net profit rose from Won5,740bn a year earlier to an estimated Won8,780bn ($7.44bn). Combined turnover was an estimated Won306,570bn won, up 23 per cent from Won248,970bn in 1994.

Agencies, Seoul

Restaurant side helps PepsiCo advance 10%

By Richard Tomkins in New York

A turnround in the financial performance of PepsiCo's restaurants division helped the US soft drink and fast food group report a 10 per cent increase in net profits to $565m in the fourth quarter yesterday, excluding an accounting change.

Underlying earnings per share rose by 9 per cent to 70 cents a share, slightly ahead of the expected 68 cents. But reported net profits were reduced by $384m to $181m, or 22 cents a share, because of a non-cash accounting change.

Full-year net income, without the accounting change, rose from $1.75bn to $1.99bn, but the reported figure was $1.61bn.

PepsiCo said earnings growth would have been stronger had it not been for the fact that last year's fourth quarter was one week longer than this year's. On a comparable basis, full-year earnings per share would have grown 15 per cent.

Another factor that held PepsiCo back in 1995 was the currency devaluation in Mexico, which is the company's biggest market outside the US. However, the company said this was countered by earnings growth of more than 20 per cent by its businesses outside Mexico.

PepsiCo said that if the reporting periods had been the same length, its beverage division would have seen a fourth quarter volume increase of 3 per cent in the US and 5 per cent internationally. On a comparable basis, operating profits rose by 1 per cent to $269m in the US but doubled to $34m internationally.

Nearly 40 per cent of the international volume growth in beverages came from emerging markets in eastern Europe, central Asia and India, PepsiCo said, and the company had regained leadership of the cola market in important east European markets such as Hungary and Poland.

In the snack food division, operating profits rose by 6 per cent to $347m in the US but fell by 9 per cent to $103m internationally.

In the US, about 70 per cent of the division's sales growth came from the "Better For You" line of low-fat or no-fat products, but international snack sales were down because of their heavy dependence on Mexico.

The restaurant division saw a big turnround from last year's troubles, increasing operating profits by 23 per cent to $271m in the US and by 50 per cent to $27m internationally.

But much of the US increase came from gains on the refranchising of restaurants, while the international side benefited from the lapping of a consolidation charge a year earlier.

Cash flow at Time Warner breaks $1bn in final period

By Tony Jackson in New York

Time Warner, the US media group that is in the process of acquiring Turner Broadcasting, reported cash flow 26 per cent higher in the fourth quarter at $1.04bn, on revenues up 12 per cent at $5.1bn.

This was the first time that quarterly cash flow had exceeded $1bn.

Turner also produced a 12 per cent rise in revenues in the quarter, to $923m. However, cash flow was more sluggish, with a rise of only 4 per cent to $142m.

For the year, Turner's cash flow was 30 per cent up at $571m, on sales up 22 per cent at $3.4bn.

Time Warner agreed to pay $7.5bn to take over Turner last August. The deal is being scrutinised by US competition authorities, which may take until the summer to reach a conclusion.

Time Warner's cable-TV division, which ranks second largest in the US after TeleCommunications Inc, resumed its growth in cash flow in the fourth quarter after being held back by government price caps earlier in the year.

Cash flow in the quarter was $400m, an increase of 13 per cent after adjusting for acquisitions.

Official price caps on the cable industry are to be lifted as part of the telecommunications bill passed by Congress last week.

The music division of Time Warner, which has been subject to management upheavals in recent months, increased its cashflow by 18 per cent for the quarter to $295m, despite a 6 per cent drop in revenue to $1.2bn.

The company said full-year cash flow of $775m, before $85m of closure costs in the third quarter, was the twelfth successive annual record.

The Time publishing division raised cash flow 11 per cent in the quarter to $175m. Growth was based mainly on magazine advertising, as well as overall rises in circulation, partly offset by higher newsprint and postal costs.

The Warner Bros film studio raised cash flow 27 per cent to $121m, helped by the domestic success of *Batman Forever*, claimed to have the highest US box office of 1995.

International releases included *The Bridges of Madison County* and *Interview with The Vampire*.

Home Box Office, the pay-TV business, raised cash flow by 16 per cent to $73m in the quarter. Subscribers to HBO and Cinemax, the group's other pay-TV channel, rose by 2.7m to total 29.7m.

The WB Network – the TV network launched a year ago in competition with the four established operators – made a loss of $26m in the quarter and $66m in the year. The network is claimed to reach 80 per cent of US households.

Barron Hilton (left) congratulates Stephen Bollenbach as he takes over at Hilton Hotels AP

Bollenbach checks into top slot at the Hilton

New York traders marked down Walt Disney shares briefly on Monday as a token of respect as Mr Stephen Bollenbach, the entertainment group's chief financial officer, bowed out of Burbank and checked into Beverly Hills as new president and chief executive of Hilton Hotels.

A simultaneous surge in the hotel and gaming group's market valuation was another measure of that respect, enhanced by the market's relief that Mr Barron Hilton, 68, had decided at last to step aside and content himself with being merely chairman.

Mr Hilton, son of the late, legendary Conrad, had been chief executive since 1966 and chairman since 1979. However, he had developed an unhappy talent for irritating investors with his meandering, hesitant management style.

His quest for the grail of enhanced shareholder value had led him into – and out of – several of the better trodden routes, following an analysis of the group by Smith Barney, the New York investment bank.

The choices presented to Mr Hilton – buying back group stock and spinning off either hotels or gaming – were superseded by speculation of a sell-out of the entire group.

Then a plan to spin off the gaming division, based around five Nevada casino hotels, was cancelled two weeks ago. The latest grand project – to venture into the mid-range US business hotel market and build a chain of more than 100 three-star Garden Inns by the end of the decade – was unveiled shortly afterwards.

Mr Hilton, speaking at a press conference on Monday, said the scheme would be going ahead. Mr Bollenbach was not saying much.

According to the departing chief, who still holds 24.5 per cent of the group, Mr Bollenbach now has complete control. He will, Mr Hilton said, be "calling all the shots".

Mr Bollenbach, who had spent the two days between the surprise announcement of his appointment and starting work "relaxing in Arizona", said he still had too much to find out before he could talk about plans.

He had, however, "done the job before", he said. Mr Bollenbach, who will combine his presidential and chief executive roles with that of chief financial officer, was referring to the task of running a large corporation.

But the job Wall Street wants done is the restructuring of Hilton. This is a role Mr Bollenbach has tackled several times in the past – always speedily and, so far, without a flop.

During his brief tenure as Disney CFO – less than a year – he was publicly credited with convincing Mr Michael Eisner, the group's conservative chief executive, that borrowing to buy Capital Cities/ABC in last year's mould-breaking $19bn bid would be proper, prudent and profitable.

Apart from this diversion into "pure" entertainment, Mr Bollenbach's record appears custom-built to deal with Hilton. He oversaw the restructuring – some say salvation – of Trump Hotels and Casino Resorts. In his last coup before moving to Disney, he split Marriott Corporation, relieving the profitable hotel management interests of the burdens of the debt-laden property operations.

Christopher Parkes

Charge holds back Baxter Intl results

By Maggie Urry in New York

Baxter International, the US healthcare company which is embroiled in a battle with Germany's Fresenius to buy W. R. Grace's kidney dialysis business, reported fourth-quarter results yesterday showing strong growth in the biotech and cardiovascular activities.

Results for the period were depressed by a $26m after-tax charge relating to the planned spin-off of the healthcare cost management business, announced last November. The spin-off is due to be completed by the end of 1996.

Mr Harry Kraemer, chief financial officer, said the group would increase earnings "in the high single digits" in 1996, and generate more than $500m of cash flow from operations.

Before the charge fourth-quarter net income was 17 per cent higher at $202m and earnings per share ahead 21 per cent to 74 cents. After the item, net income was ahead from $172m to $176m, and from $596m to $649m for the full year.

Earnings per share in the quarter were up from 61 cents to 65 cents, and from $2.13 to $2.35 for the year. The faster earnings growth reflects a share buy-back programme.

Net income from the continuing businesses – the medical technology side which would take in the Grace business if Baxter wins – rose 11 per cent in the final quarter to $148m, with earnings per share up 15 per cent to 54 cents. For the year, net income from these activities fell from $406m to $371m, because of restructuring and litigation costs.

Those businesses being spun off increased net income in the quarter from $39m to $54m, before the $26m charge. For the year, they raised net income from $190m to $278m.

AMERICAS NEWS DIGEST

Quaker Oats in red in second term

A $40.8m restructuring charge and a $19m write-off of excess inventories of Snapple, the soft drink, pushed Quaker Oats, the US food group, into a net loss of $49m, or 36 cents a share, for its second quarter to the end of December. In the same period a year ago it reported a profit of $33m, or 25 cents. However, Mr William Smithburg, chairman, said the group was better positioned for growth in 1996 as a result.

The December 31 quarter is the end of a transition period to change the start of the fiscal year. Fiscal 1996 began on January 1. Snapple, which was acquired in late 1993, had an $80.5m operating loss in the second quarter, including $24.4m in restructuring charges and the inventory write-off. US and Canadian grocery products sales fell 13 per cent, while international grocery products fell 40 per cent, due largely to the divestitures of the European pet food and Mexican chocolate businesses.

For the six months, group profits fell 87 per cent to $12m or 9 cents a share, on revenues down 13 per cent to $2.7bn.

Reuter, Chicago

Allstate beats expectations

Allstate, the US insurer, comfortably beat market expectations with after-tax profits of $397m, or 88 cents a share, in the final quarter of 1995. The results, which compared with earnings of $163m in the final months of 1994, were buoyed by steady premium growth and lower catastrophe losses. Revenues climbed nearly 10 per cent in the latest period, to $5.9bn, aided by growth of 20 per cent in the group's smaller life insurance operations and 8 per cent in its property and liability business.

For 1995 as a whole, Allstate's combined ratio (expenses and underwriting losses as a proportion of revenues) fell to 100.4, from 111.3 a year before. Its underwriting performance in 1994 had been dented by after-tax catastrophe losses of $1.3bn, largely stemming from the Northridge earthquake in southern California. Catastrophe losses in 1995 were $607m, $148m of which was incurred in the final quarter.

Allstate's net income in 1995 as a whole climbed to $1.9bn, compared with $484m the year before, on revenues which were 8 per cent higher at $22.8bn. That was equivalent to $4.24 a share, up from $1.08 in 1994.

Richard Waters, New York

Sprint lifts earnings 34%

Sprint, the US telecoms company which last week finalised its international alliance with Deutsche Telekom of Germany and France Télécom, raised earnings in the fourth quarter by 34 per cent to $278m before special charges. For the year, earnings rose 18 per cent to $1.02bn, or $2.89 a share.

The cellular phone business, which Sprint is due to spin off to shareholders around the end of the first quarter this year, raised operating profits 69 per cent in the year to $145m, on revenues up 33 per cent at $834m. During year, the number of customers rose 44 per cent to 1.5m. In the final quarter, average revenue per customer fell to $51 from $57 the year before, which Sprint said was in line with the industry.

In US long distance telephony, operating profits rose 47 per cent to $204m on revenues up 13 per cent to $1.9bn. Sprint said growth had accelerated through the year, with particular strength in the residential market. Minutes of use in the quarter were up 10 per cent, compared with 7 per cent for the year as a whole.

Tony Jackson, New York

Greenwich Air expands

Greenwich Air Services, the Miami-based aero-engine maintenance company, looks set to become the world's biggest independent aero-engine overhauler after signing a letter of intent to take over the commercial engine services division of Aviall, the Dallas-based engine repair company. Greenwich said the price of the proposed deal was between $260m and $280m.

Aviall's commercial engine services division had been making losses, and the company said last week it was putting it on the market. Included in the transaction are the maintenance and repair plants in Dallas and Forth Worth, Texas, and in Prestwick, Scotland; plus a components business in McAllen, Texas. The Prestwick operation, Aviall Caledonian Engine Services, employs about 850 people and won a Queen's award for export achievement last year.

Greenwich has operations at Miami International Airport, Bradley International Airport in Connecticut, JFK International Airport in New York, Westover Airport in Massachusetts, and in Melbourne, Florida. Mr Eugene Conese, chairman and chief executive, said the enlarged company would repair and overhaul 150 engines a month with sales in excess of $750m a year and a customer base of 500 customers world-wide.

Richard Tomkins, New York

Reverse at Canadian Pacific

Canadian Pacific, the big transport, energy and property group, ran up a loss of C$989.7m (US$718.9m), or C$2.90 a share, for the fourth quarter of 1995 after special charges of C$1.09bn, against profit of C$100m, or 29 cents, in the 1994 period. Revenues were C$2.2bn against C$1.86bn. For the full year, the loss was C$823.5m, or C$2.41, against profit of C$393.1m, or C$1.16, on revenues of C$7.9bn against C$7.1bn.

CP had warned earlier it would take the heavy special charges for restructuring its Canadian and US rail operations and its property unit in the fourth quarter. Its stock was little changed at C$26.37 in the market.

At the operating level before the special charges, CP posted net profit of C$470m in 1995 against C$436.8m in 1994. The railway hotels and coal units did better, but PanCanadian Petroleum, the biggest single profit contributor, came in lower because of weak natural gas prices.

Robert Gibbens, Montreal

Record subscriber growth behind 93% rise and the payment of its maiden dividend

BSkyB under fire from Lords and OFT

By James Harding and Raymond Snoddy

The House of Lords last night inflicted a humiliating defeat on the government by voting to keep sports events such as the Derby and the FA Cup Final on terrestrial television by law.

In a convincing vote against the government the Lords pushed through amendments to ensure that the so-called "crown jewels" of the sporting calendar would not be bought up by subscription television companies such as British Sky Television, the satellite venture.

The Lords rebellion came on the day the Office of Fair Trading decided to refer two exclusive sports agreements involving BSkyB and soccer's Premier League to the Restrictive Practices Court.

The OFT complained that the Premier League operated as a cartel because Premier League clubs were unable to sell their television rights to broadcasters without League permission. It said the exclusive deal between BSkyB and the League also contained significant restrictions on trade.

The news knocked 22p off BSkyB shares to 393p despite the announcement of a 93 per cent increase in pre-tax profit to £106m ($163m) in the six months to the end of December.

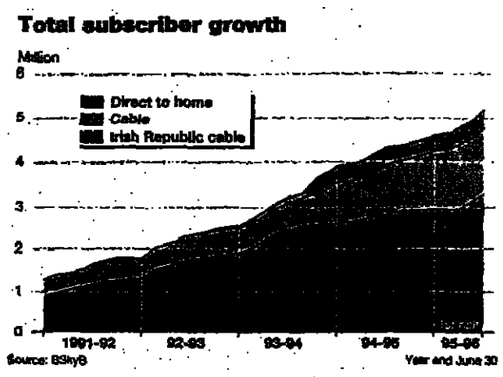
The vote in Lords is a particular embarrassment to Mrs Virginia Bottomley, national heritage secretary, who tried to head off mounting opposition in the Lords by publishing a discussion document on the issue last Friday.

The decision by the OFT was condemned yesterday by both BSkyB and the Premier League. Mr Sam Chisholm, chief executive of BSkyB, called the decision "a Bridgeman too far" in a reference to Mr John Bridgeman, the director-general of fair trading.

However he was confident of the outcome at the Court.

BSkyB's profits were better than expected with record subscriber growth, and leading to the payment of its first dividend since flotation.

The company now offers 28 television channels to subscribers and will probably have more than 100 next year through the launch of a digital satellite service.



The profit was helped by a £44m reduction in net debt, as proceeds flowed from the December 1994 flotation. Operating profit rose by 34 per cent to £137m on turnover up 30 per cent to £464m.

Mr Chisholm said: "The last quarter of 1995 was our best ever; net subscriber growth of 354,000 was a record, and we signed up our five millionth customer."

By the end of the year, BSkyB had a total of 5.18m subscribers, with 3.17m viewing with satellite dishes and 1.56m through UK cable networks. A further 450,000 subscribe on cable networks in the Irish Republic.

The subscriber total was up 17 per cent compared with the same period last year. The increase in subscriber numbers has been reinforced by the amount of money they spend. The number of satellite dish subscribers taking at least one premium channel has risen to 97 per cent and 72 per cent take "the top tier package" of all the premium movie and sports channels.

Fergus Wilson

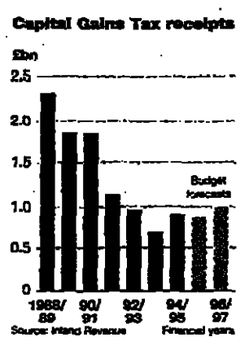
Sam Chisholm: 'The last quarter of 1995 was our best ever'

Mr Chisholm said yesterday he believed the range of programmes available was responsible for the subscriber growth. Seven new programme services were added last October and November.

LEX COMMENT

UK taxation

As ever, Conservative MPs are energetically lobbying for reform of Britain's unloved capital gains tax. Their enthusiasm is understandable. CGT is over-complex, high by international standards, probably discourages entrepreneurs, yet yields precious little for the exchequer. The snag is that it is probably a necessary evil. Cutting the rate – or ultimately abolishing the tax altogether, as the prime minister would like – would be expensive. The reason is that it would create lavish opportunities for tax avoidance, through dressing up income as capital gains. True, many of the old loopholes have been closed. But no-one should expect the tax experts not to find new ones. Another popular scheme for reform aims to encourage "long-termism", by charging less CGT on gains from long-term investments.



This is perverse: it deliberately sets out to make markets less efficient. But even if the objective made sense, CGT changes are unlikely to do much to deliver it because many of the biggest alleged short-termists, such as pension funds, do not pay the tax.

And if, as seems likely, any changes are restricted to individual taxpayers, it would be largely irrelevant because of the small proportion of equities individuals hold, many of these in tax-free PEPs.

None of this means CGT reform is a lost cause. There is certainly scope for simplifying the tax, or for small-scale reliefs targeted at entrepreneurs. But the big ideas in this debate look suspiciously like expensive gimmicks.

Johnson Matthey expands in US

By Christopher Price

Johnson Matthey, the precious metals and engineering technology group, yesterday underlined the strategy of expanding its electronic materials business with the $40m purchase of the circuit board manufacturing operations of Cray Research, the US computer group.

The move is part of the UK group's attempt to reduce its reliance on the precious metals and catalytic systems businesses, and follows the $170m acquisition of Advanced Circuits (ACI), a manufacturer of semi-conductor products, in September.

Mr Geoff Wild, president of Johnson Matthey's electronic materials division, said the purchase of the Cray production facility would fit well with ACI's printed circuit board business. In particular, the two acquisitions would combine well to exploit the growing demand for plastic laminated packaging for semi-conductors.

Half of the output capacity of the new production facility, based in Wisconsin will go to supplying circuit boards to Cray.

Revenues from the contract with Cray are believed to be about $25m a year. The remainder of the capacity will be used to produce laminated boards for ACI.

Full production is likely to be achieved within the next six months. Some 350 people, mostly engineers, work at the plant, which Johnson Matthey claims is one of the most advanced in the US.

"We have the pieces of the jigsaw in place now to really take the electronic business forward", said Mr Wild.

Johnson Matthey has earmarked $200m for investment in the division, which already contributes about 20 per cent of group revenues, over the next five years.

Johnson Matthey shares rose 8p to 567p.

Medeva withdraws from Germany with DM121m Ribosepharm sale

By Motoko Rich

Medeva, the acquisitive pharmaceuticals company, has withdrawn from Germany and the oncology market with the disposal of Ribosepharm, its cancer drug business, to Klinge Pharma for DM121.6m.

Dr Bill Bogie, chief executive, said that because the business required a specialised sales force, the group could not exploit its existing international distribution system.

Furthermore, he added, the group had been unable to buy or license appropriate products or businesses to build the division into a core area.

"Medeva is all about taking businesses and developing them," he said. "But if you cannot do that there is no point in watching the business wither on the vine."

Ribosepharm was acquired in May 1993 for DM125.5m. In 1995 the business generated operating profits of £7.2m (£6.4m) on sales of £15.5m (£14.6m).

The disposal significantly reduces the group's exposure to Europe. Last year Ribosepharm contributed 6 per cent of group turnover. Total sales in Europe comprised 10 per cent of group revenues.

Dr Bogie said the proceeds would be invested in new acquisitions. "We are building up a war chest," he said.

Analysts downgraded their 1996 forecasts from £92.5m to £87.5m as a result of the sale. One said: "It is far better to cut and run than carry on. The fact is they got a 20 per cent pre-tax return so financially it was not a bad investment."

Klinge Pharma is paying DM111.6m in cash. The balance is being held as a security against tax and other warranties. The group estimated the net asset value of Ribosepharm at December 31 to be £6.4m and said the disposal would increase its net asset value by £42.8m.

Dr Bogie said the group was not currently considering further business disposals.

Arjo Wiggins turnover advances on higher prices

By Patrick Harverson

Arjo Wiggins Appleton, the Anglo-French paper group, reported turnover up from £788.9m to £969.9m ($1.49bn) in the fourth quarter of 1995. Turnover for the year rose 22 per cent from £2.91bn to £3.56bn.

However, the turnover rises masked a weakness in underlying demand, being primarily the result of higher paper prices and contributions from acquisitions made during the year. Analysts said if these factors were excluded, turnover was probably flat in 1995.

Sales weakened in the second half of last year because of customers' destocking as paper price increases finally began to show signs of levelling. Rising prices had led to a build up in stocks as customers tried to buy paper as cheaply as possible.

Destocking was particularly marked in the second half, when demand fell so sharply that paper groups were forced to shut down large parts of their manufacturing capacity.

Analysts said the fourth quarter turnover figures were in line with expectations, and did not persuade them to change their profits forecasts. The consensus is for Arjo to make profits of about £190m in 1995, compared to £217m in the previous year.

Oriel shares rise on takeover talks

By Ralph Atkins, Insurance Correspondent

Shares in Oriel leapt a further 22p yesterday to 148p after the insurance intermediary confirmed it was in talks that could lead to an offer being made for the group. Oriel's shares rose 15p on Monday.

The possible purchaser is understood to be Aon, the US-based broker. However, neither Aon nor Oriel would confirm this.

A takeover of Oriel would further shake-up the UK insurance market where smaller companies are increasingly looking for bigger parents that would give the financial strength to develop businesses.

Oriel has confirmed that it is close to selling CGA Direct, its household insurance telebroking business. The operation has been for sale for more than six months and could raise more than £10m.

That disposal would leave Oriel focused on its expanding used and new car warranty activities and creditor business. Analysts thought a deal to acquire those remaining businesses could be worth £30m.

Mr Nigel Cayzer, Oriel chairman, said the group was "in tentative discussions" with a third party but he could not comment on its identity.

Aon is understood to have approached Inchcape, the marketing and services group, last year about acquiring its Bain Hogg broking arm. Inchcape decided not to sell.

Clyde Petroleum buys in Indonesia

By Simon Kuper

Clyde Petroleum, the independent oil company, is buying Marathon Petroleum Indonesia from Marathon International, the US conglomerate, for $51m.

The purchase will give Clyde a 31.25 per cent stake in the Indonesian offshore Kakap oilfields, which Clyde expects to yield an average 43,000 barrels of oil a day in 1996. The company estimated its share at 7,300 barrels after the Indonesian government had taken its 85 per cent share of all "profit oil".

The Kakap oil would boost Clyde's forecast production to 38,500 barrels of oil equivalent a day (boed) in 1996. In 1995 it produced an average of just over 37,000 boed, giving sales of about £140m.

Clyde estimated the Kakap fields' gross remaining reserves at 70m barrels of oil at the start of 1996. The company's net share would be 11m barrels.

Mr Roy Franklin, Clyde's managing director, said the site's unexplored potential came to another 30m–40m barrels. Clyde proposes to develop at least one well during 1996. Exploration costs at the site are fully tax deductible.

MPIL's profit in 1994 was £1.5m on its entitlement of 1.3m barrels from the field. Mr Franklin said the deal would raise Clyde's gearing from the "mid-30s" to the "mid-40s", but expected it to fall below 40 per cent by the year-end.

DIGEST

Outsourcing by Scottish Widows

Scottish Widows, the mutual life assurance company, is to transfer the administration of its £22bn ($34bn) investment portfolio to WM Company, the Edinburgh-based group which specialises in investment performance measurement and administration.

It is believed to be the first outsourcing decision of its kind by a UK life assurance company. Although investment management outsourcing is common in the US it is still rare in the UK.

While Scottish Widows will continue to manage the portfolio and decide where funds are placed, the administration – including trade settlement, securities reconciliation, income collection and tax recovery – will be handled by WM.

James Buxton and Nick Denton

Russia export deal by Middlesex

Middlesex Holdings, the metal trading company which operates in the Commonwealth of Independent States, has set up a subsidiary, Middlesex Balli, to export an annual $300m of steel products from Oskol Electrometallurgical Kombinat (OEMK) in Russia.

Middlesex is providing $5.1m towards the $17.5m working capital and holds 51 per cent of Middlesex Balli. The remaining equity is shared equally between Balli Trading, another international trading company, and Sir David Alliance, chairman of Coats Viyella.

Middlesex has also been given the right to subscribe for 20 per cent of the capital of OEMK, which Middlesex says has a production capacity of 1.7m tonnes a year. *Kenneth Gooding*

Gardiner grows in Europe

A broader product base and expansion in continental Europe helped Gardiner Group, the security systems distributor, improve turnover from £80.6m to £90.4m ($140m) last year.

Mr Richard Clemons, chairman, said the group was now benefiting from its broader base: a quarter of sales came from the distribution of closed-circuit television and fire products; and 47 per cent of group profits were generated through European operations.

RESULTS

		Turnover (£m)		Pre-tax profit (£m)		EPS (p)		Dividends: Current payment (p)	Date of payment	Corresponding dividend	Total for year	Total last year
Bioneedix ϕ	6 mths to Nov 30 ■	0.016	(0.003)	0.114L	(0.059ψ)	-	(-)	-	-	-	-	-
BSkyB	6 mths to Dec 31	464	(356.9)	106.3	(55)	5.6	(3.3)	2.5	-	-	-	2.5
Gardiner	Yr to Oct 31	90.4	(80.6)	3.34	(3.51)	2	(2.17)	0.58	Apr 12	0.5	0.85	0.8
Howard Holdings	6 mths to Oct 31	2.59	(2.71)	0.241	(0.104)	0.65	(0.41)	nil	-	nil	-	0.8
Kendell	6 mths to Oct 31	3.72	(4.52)	1.23L	(1.23L)	0.3L	(0.3L)	nil	-	nil	-	nil
NWF ϕ	6 mths to Nov 30	31.2	(28.9)	1.22ϕ	(1.11)	10.7	(10.1)	-	-	-	-	-

Investment Trusts		NAV (p)		Attributable Earnings (£m)		EPS (p)		Current payment (p)	Date of payment	Corresponding dividend	Total for year	Total last year
European Assets‡	Yr to Dec 31	9.54	(8.94)	4.58	(3.84)	0.18	(0.15)	0.08	May 3	0.08	0.16	0.16
French Property	Yr to Dec 31	84.94	(87.34)	0.5	(0.37)	1.98	(1.48)	1.4	Apr 26	1.45	1.9	1.45

Earnings shown basic. Dividends shown net. Figures in brackets are for corresponding period. ϕAfter exceptional charge. ψAfter exceptional credit. †On increased capital. ϕAim stock. §USM stock. ‡Dutch florins. ■ Comparatives for previous 12 months.

Basis for a building

Designers of a building intended as a model for low energy and "environmentally aware" offices of the next century are taking their philosophy right down to the foundations.

Crushed concrete from a 12-storey office block being demolished in central London is being used in the Energy Efficient Office of the Future, under construction at the Building Research Establishment's Garston site in Hertfordshire.

In what is said to be the first use in the UK of recycled aggregates in ready mixed concrete, the material from the old bank building is being used as coarse aggregate in more than 1,000 cu m of concrete supplied for foundations, floor slabs and structural columns.

The project is a practical demonstration of work carried out by Rod Collins of BRE's inorganic materials division. Its aim is to show that crushed concrete can be put to high grade use as well as being used for site fill or for landfill engineering.

Use of recycled aggregates would thus support the UK's commitment to the principles of sustainable development and help achieve official targets for the contribution of secondary materials to aggregate supply.

According to BRE, the new concrete's handling characteristics, including its pumpability, have been excellent and completely unaffected by the use of the recycled materials.

The ready mixed concrete was produced at RMC's nearby Rickmansworth plant, using ground blast furnace slag, a by-product of the iron-making industry, to replace at least half of the Portland cement in the two different mixes.

The slag saves money, improves the chemical resistance of the concrete and works well with the recycled aggregate.

Andrew Baxter

Public opposition to nuclear power in Japan has forced utilities to go elsewhere, writes **Emiko Terazono**

Not in my country

France's nuclear tests in the South Pacific may have provided the main focus of controversy for anti-nuclear campaigners in recent months, but for the people of Maki, a town in northern Japan, the big issue is right on their doorstep.

A plan by Tohoku Electric Power, the main electric utility providing electricity in northern Japan, to build a nuclear reactor in the town is hanging in the balance, and may become the latest casualty of rising anti-nuclear sentiment around the country.

Public anxiety over nuclear power is now having a direct effect on the nuclear equipment industry. Last month, in elections for the mayorship of the town, residents elected Takaaki Sasaguchi, who had been calling for the country's first referendum on the construction of a nuclear power plant.

The industry's problems have been compounded by the recent leak of three tonnes of non-radioactive sodium coolant from an experimental fast breeder reactor at Monju in western Japan. The reactor, Japan's newest, was closed down after the leak, but local residents want it shut permanently.

As a consequence of this mounting anti-nuclear sentiment, domestic demand for nuclear plants is faltering, and equipment suppliers have been forced to scale down or restructure their nuclear plant divisions.

Little wonder, therefore, that Japan's nuclear power plant builders are looking beyond the country's borders, in the hope that new demand from Asia could offset the problems they are facing at home.

Although Tohoku Electric announced the construction plan for the Maki reactor in 1969, the project has been fraught with problems from the beginning. The company paid local fishermen Y4bn (£25.5m) in compensation, but was forced to halt administrative procedures in 1983 as land speculators and anti-nuclear groups bought up small plots of land in the planned location.

The plan has divided residents of Maki, a town of 30,000. Calls for a referendum reviewing the reactor construction heightened in 1994 following an abrupt announcement by Kanji Sato, the then mayor who had been elected on an anti-nuclear platform, that he would support the construction of the nuclear power plant.

Sato, who has tried to obstruct a referendum citing "political confusion", resigned last December following a request for his recall accompanied by signatures of 10,231 Maki residents.

Atsuko Takashima, a supporter of Sasaguchi, reckons that the changes in the resident profile of Maki, which has become a dormitory town for the nearby city of Niigata, have broken old political influences and increased awareness over the nuclear issue.

Reuter

The adverse climate for nuclear power has boosted the time needed to obtain local approval for the construction of reactors

And while the turnout for last month's elections was a record low 45.8 per cent, Sasaguchi reckons that many residents believed his victory was secure and did not bother to vote. This was because the pro-nuclear camp had failed to find a candidate due to the Monju accident, which occurred a few weeks before the election.

Although the Japanese government's energy plan calls for the construction of 15 nuclear power stations over the next 14 years on top of the current 47 reactors to produce 70.5m kilowatts of power by 2010, there is a fear that the target may not be met.

Some utilities have already abandoned nuclear reactor construction plans. Apart from Tohoku Electric's problems at Maki, Kyushu Electric Power recently announced a freeze on its plans to site a plant in Miyazaki on the southern island of Kyushu, due to strong local resistance.

The adverse climate for nuclear power plants has boosted the amount of time and funds needed to obtain local approval for the purchase of land and construction of nuclear reactors.

As a consequence of this mounting anti-nuclear sentiment, domestic demand is faltering

According to a survey by the Ministry of Trade and Industry (Miti), during the 1970s it took 10 years for an electric power company to start operating a plant once the plans were announced. However, this rose to 17 years during the 1980s and 25 years in the 1990s, and the problem could be aggravated by the Monju accident.

For the Japanese nuclear industry, therefore, the grass looks greener elsewhere. Asia's fast-growing economies are creating huge new demand for electricity, and more than 20 nuclear plant projects are being planned in parts of Asia including China and Indonesia.

Japanese nuclear plant manufacturing groups which include Mitsubishi Heavy Industries, Hitachi and Toshiba are eager to enter the expanding market. Mitsubishi is interested in Indonesia's plant project, while Hitachi and Toshiba will team up with General Electric to bid for Taiwan's planned nuclear reactor.

The overall slowdown in new orders has prompted Japan's nuclear power plant makers to restructure their operations. Ishikawajima-Harima Heavy Industries said it would reduce the workforce in its nuclear power plant division by 200 to 850 over the next few years by shifting employees to other parts of the company. Hitachi also plans to send some of its nuclear engineers to its semiconductor division.

The slowing demand in Japan is especially severe for Mitsubishi group, led by Mitsubishi Heavy Industries which specialises in pressurised water reactors (PWRs).

No plans for PWRs have been announced since an accident in February 1991 at the Mihama PWR plant, which Mitsubishi built for Kansai Electric Utility north of Kyoto. A broken pipe caused 55 tonnes of radioactive water from the primary cooling system to be released into the secondary system which powered the turbine.

Mitsubishi has no new orders after a PWR it is currently building for Kyushu Electric. New reactors planned for construction in Japan over the next five years have been boiling water reactors, which are made by groups led by Hitachi and Toshiba, although PWRs still dominate the international nuclear industry.

Mitsubishi is eager to fill the gap with orders from Asia and says it is probably able to construct a reactor with the expertise it has accumulated domestically. "With other countries cutting down research and development and personnel, Japanese companies have expertise in actually using new technology and building new plants," it says.

But Japanese companies are more likely to team up with their European and US counterparts for projects in Asia rather than bidding alone partly because they are latecomers to the market and partly due to the fact that Japan has yet fully to develop nuclear waste reprocessing.

"The chances are that Asian countries will want to offer the project to a company or a consortium which has nuclear waste reprocessing know-how," says an official at a Japanese plant maker.

The Japanese government is also ready to back the companies by enhancing ties between Asian companies by offering training projects for nuclear regulators. Starting next fiscal year, Miti is planning to accept officials from Asian countries in charge of regulating their nuclear industries to offer training.

In Maki, meanwhile, the newly appointed Sasaguchi says he is not a proponent of a freeze on Tohoku Electric's nuclear plant in Maki, but wants local residents to decide. His first challenge will be passing the town's budget for next fiscal year in March through the town assembly, where the pro-nuclear camp holds a marginal majority.

Net turns green

Crofters in the Scottish highlands could soon be using the Internet to search for information that will help them assess the environmental impact of their farming and land management decisions as part of a project with Edinburgh University.

The crofters, together with a forestry group from Valencia in Spain, will join researchers from the Netherlands, Germany and the UK in a £250,000 project to develop and try out software to back up their long-term decisions about the land.

"We would like to explore to what extent computer technology could be useful in gathering and manipulating information for us," says Bill Ritchie from the Assynt Crofters Trust.

Four years ago, the crofters bought 21,000 acres in the northwest highlands of Scotland on which they are tenants. They now have many plans for the land, but it is in an environmentally sensitive area and they want to assess the impact of their plans on the ecosystem.

Ritchie explains that they hope to build a hydro-electricity generation plant which involves raising the level of a loch. "We want to judge what the long-term effect of that would be on the fishing in the loch and what we can do to minimise any damage," he says.

Ritchie is hopeful that the crofters can gain access to other studies either through the Internet or from other sources. Computer modelling could then apply the data to their own local circumstances.

The Valencian foresters are looking at restoring land that has been burnt by wildfires and want to find information to assist them.

The project will initially last one year, but is likely to be extended for up to four years in order to set up the farmers with the right equipment and skills to use the information they find. It is being funded by the European Union.

Deborah Hargreaves

COMMODITIES AND AGRICULTURE

Brazil halts gold trading to quell rumours

By Jonathan Wheatley in Sao Paulo and Kenneth Gooding in London

In an unprecedented move, Brazil's central bank, frustrated that it has not been able to quell persistent rumours that a rogue trader has left it desperately short of gold, has stopped trading the precious metal.

The bank has also called on the US Commodities Futures Trading Commission to investigate the source of the rumours which it suggests were started as part on an attempt to manipulate the gold price upwards.

As frequent denials have failed to prevent the rumours from getting ever more outlandish – at the end of last week it was being suggested the bank was short of as much as 2,000 tonnes of gold, equivalent to virtually the entire annual output of all the world's gold mines – the bank said it would stop trading the metal to provide conclusive proof it was not short.

Traders pointed out that the speculation would end only if the bank stopped long enough for all its contracts to expire. This seems to be what it has in mind because Mr Joubert Furtado, head of its foreign reserves department, said the bank would stop trading gold "for an indefinite period, probably some weeks".

He added: "The bank has taken this unprecedented step in order to demonstrate that it is not, as rumoured, extremely short of gold. We want to make it clear that the bank is not in the position of having to buy gold, especially at a time when prices have been pushed higher by speculation".

Mr Furtado suggested that one of 12 gold traders through which the bank occasionally operated was "using the bank's name to manipulate the market". He suggested the trader would be subject to penalties under US law and that the central bank would seek compensation, although he would not specify in what form.

Most analyst had dismissed the rumours, first denied by the bank in October, then again in January and finally last week. As Ms Rhona O'Connell, analyst at stockbroker T. Hoare & Company, pointed out, while there was a precedent for central banks, particularly in Latin America, using gold options as a method of asset management, Brazil's central bank gold holdings amount to only 147 tonnes so "any trading in the volumes the market was suggesting was thus hugely out of kilter with the physical and would have had to have been spread very widely around the market".

Australia 'set to become second biggest producer'

By Nikki Tait in Sydney

Australia could become the world's second largest gold producer, after South Africa, by the end of the decade, according to forecasts from the Australian Bureau of Agricultural and Resource Economics, the government-owned forecasting agency. At present it is a significantly smaller producer than the US.

Reporting to Abare's annual conference, which opened in Canberra yesterday, research analysts suggested that Australian mine production could increase by about 36 per cent, from an estimated 274 tonnes in 1995-96 to around 360 tonnes in the year 2000-01.

The prediction is based on a rise in the gold price from around US$400 an ounce in 1996, to US$445 an ounce in 2000-01. In real terms, this would assume a rise until about 1997, and a tapering-off thereafter. "In real terms, the gold price is projected to remain reasonably flat over the outlook period," said Mr John Cairns, principal research officer.

The production is predicated on strong growth in exploration expenditure, the presence of economic reserves and industry margins.

"These factors are expected to lead to the development of many new and expanded projects which will result in Australia becoming the second largest gold producer in the world by the end of decade," he said.

● Mr John Hannah, general manager of BHP Australia Coal, said yesterday that he expected annual negotiations with the Japanese steel mills over hard coking coal price to be settled fairly shortly. He also anticipated some overall price increase, although less marked than last year's. "It won't be last year's price rise, which was an unusual one, but there'll be an increase."

Last year, BHP won a 12.4 per cent price increase, but also accepted a cut in hard coking coal tonnages from 7m to 5.8m tonnes.

● The Sydney Futures Exchange is to introduce options on its wool futures contract from February 19, the first option contract linked to a commodity futures contract on the SFE. The exchange said that the move formed part of its overall strategy of expanding its role in regional commodity trading.

The wool futures contract itself got off to a slow start last year, but around 5,000 contracts covering 125,000 farm bales of wool have now been traded, with activity particularly marked since October.

The SFE claims that the new options, which will trade for the listed months of April, June and August and expire on the Friday prior to the wool futures contract delivery, should help growers lock in a minimum price for the wool they produced. Mr Les Hosking, chief executive of the SFE, said that the contract should appeal to "smaller market participants who are seeking a risk management tool which has limited risk potential".

MARKET REPORT

Coffee prices stronger as investment funds return

London Commodity Exchange robusta **COFFEE** futures extended early gains yesterday afternoon to end 2.4 per cent up on trade and fund buying and speculative short-covering in the absence of significant producer selling, traders said.

"There has not been origin selling in any great shakes now for some time. . . But they do sell bits and pieces when prices rise," said one.

Traders said London's afternoon gains were sparked by a strong performance from New York's arabica contract.

At the close the second-month May contract was up $45 at $1,919 a tonne, compared with the day's high of $1,950 a tonne.

"There was good fund buying in New York, forcing the contract through [buying] stops [stop-loss orders]," said London trader. At the Cocoa, Sugar and Coffee Exchange coffee futures were sharply higher at midsession, with the key March contract up 4.60 cents at $1.25¼ a pound.

"I think industry is a little nervous. . . A few were caught out on Monday," said a trader, explaining that they missed the chance to fix when prices slipped on Monday to a low of $1,870.

Other traders noted that while the industry's stocks seemed to be running low, the trade was nervous over the build-up of long positions after the market's recent run-up.

Trading in base metals was sluggish on the London Metal Exchange, with little significant price movement seen, and values were mixed by the close of the after hours "kerb" session.

Traders said market leaders **COPPER** and **ALUMINIUM** had settled into tight technical ranges, with that trend being matched by the other metals. LME Warehouse stock data announced yesterday morning had little lasting impact.

"We have settled into a $20 range, based on $2,520-$2,540, and business has gone off the boil," a copper trader said.

Dips below the floor were well defended today, and most business was conducted around overnight levels.

Copper stocks declined by 4,725 tonnes on Tuesday, largely due to metal moving out of the Hamburg warehouse for end-users. Final three months business was at $2,527, up $4 a tonne from Monday's kerb close.

Aluminium was well defended below $1,600 once more, but lacked the impetus to break above $1,620. The last trade was at $1,608 a tonne, down $2. Stocks rose by 4,750 tonnes, a reflection of relaxed consumer interest.

Compiled from Reuters

LME WAREHOUSE STOCKS
(As at Thursday's close)
tonnes

Aluminium	+4,750	to 655,350
Aluminium alloy	+140	to 87,380
Copper	-4,725	to 348,975
Lead	+4,575	to 114,525
Nickel	-90	to 40,380
Zinc	-875	to 647,075
Tin	-260	to 10,810

EU has four-year 'window' for farm policy reform

By Alison Maitland

The European Union has a "unique window" of up to four years for a public debate on reforming the common agricultural policy before external events force change, a senior European Commission official said yesterday.

Mr Russell Mildon, director of international affairs relating to agriculture, told the annual conference of the National Farmers' Union of England and Wales: "Over the next few years we have a window of stability. The aggressive [trade] diplomats in Geneva will leave us in peace until 1999. It is implausible that any central or east European country will join the EU before 2000".

He added: "The important thing is to have a public debate and establish a consensus before 1999".

Mr Mildon outlined the commission's recent internal debate on the shape and pace of future reform.

He said it had rejected the status quo as untenable in the long term. On the other hand, radical reform – including abolishing price support and phasing out compensation payments – would threaten EU social and environmental policies.

The commission had chosen "a middle way", continuing the approach begun in 1992 with the MacSharry reforms.

"Gradually we are to wean ourselves off the old-fashioned subsidisation process."

This involved widening the reforms to cover sectors such as fruit and vegetables and wine, and deepening the reforms in other sectors, notably cereals. He did not elaborate on whether this meant further cuts in support prices or a reduction in arable area compensation payments.

Mr Mildon added that the commission would seek to begin reforming sectors untouched in 1992 such as sugar and dairy production.

Answering a question from the floor about changes in the milk quota system, he said the commission was "not drafting reforms of the quota system that will hit the public domain in the next six to 12 months".

The conference earlier heard Mr Don Kenyon, Australia's ambassador to the World Trade Organisation in Geneva, call for far greater liberalisation of agricultural trade.

Mr Mildon said agricultural price stability would be "the fundamental point of difference" between the EU and the Cairns group of 14 exporting nations including Australia, which account for 20 per cent of farm trade, in the next round of world trade talks.

Egypt lifts cotton export ban

By James Whittington in Cairo

In a move that should help to ease pressure on the international market for the supply of long staple cotton varieties, the Egyptian government this week has lifted its ban on cotton exports.

Last season, Egypt captured 27 per cent of the world market for long staple cotton with exports of 67,000 tonnes. But this season, in an attempt to protect public sector textiles mills from a shortfall in supply and domestic rising cotton prices, the government delayed any announcement on exports until local consumption had been satisfied.

Egypt's main overseas buyers in Italy, Japan and Switzerland were quietly assured that deliveries would take place this season but the four month delay in announcing an export policy unsettled local farmers and traders.

The lifting of the ban only covers exports of extra long staple varieties – Giza 45,76 and 77.

Analysts in Cairo expect export volumes to be the same as last season. But Mr Atef Obeid, the public enterprise minister, has said he wants to see a dramatic increase in volumes over the next few years by reserving special areas for planting cotton for exports.

No export prices have been announced yet. US pima prices are at $1.80 a pound, compared with an average of $1.30 during the 1994-95 season.

North Americans vie for Philippines mine

By Edward Luce in Manila

Three north American companies are vying to bid for full ownership of the 550m peso (US$20m) North Davao Mining Corporation under the Philippine government's mine privatisation scheme.

Officials said this week that the three companies, Phelps Dodge of the US and two Canadian groups, Placer Dome and TVI Resources, were undertaking "due diligence" reviews on the North Davao Mining claim, which has an estimated reserve of 103m tonnes of copper ore. The winning bidder would also have to invest up to US$33m on rehabilitation of mining facilities.

TVI Resources and Echo Bay Mines, a US company, last year bought the option to the Kingking gold and copper mine from Benguet Corporation of the Philippines for $30m. The North American companies plan to start operations in 1997.

COMMODITIES PRICES

BASE METALS

LONDON METAL EXCHANGE
(Prices from Amalgamated Metal Trading)

■ ALUMINIUM, 99.7 PURITY ($ per tonne)

	Cash	3 mths
Close	1584-85	1609-9.5
Previous	1584.5-85.5	1607-8
High/low	1582.5	1614/1605
AM Official	1582-82.5	1607-08
Kerb close		1607-08
Open int.	222,537	
Total daily turnover	52,734	

■ ALUMINIUM ALLOY ($ per tonne)

	Cash	3 mths
Close	1350-60	1385-95
Previous	1350-55	1383-85
High/low		1391/1380
AM Official	1350-60	1385-95
Kerb close		1385-95
Open int.	5,029	
Total daily turnover	1,716	

■ LEAD ($ per tonne)

	Cash	3 mths
Close	759-61	760-61
Previous	767.5-8.5	765-66
High/low		763/57
AM Official	761-62	760-61
Kerb close		757-58
Open int.	36,335	
Total daily turnover	6,325	

■ NICKEL ($ per tonne)

	Cash	3 mths
Close	8325-35	8425-30
Previous	8375-85	8475-80
High/low	8325	8515/8400
AM Official	8320-25	8410-15
Kerb close		8395-8405
Open int.	42,561	
Total daily turnover	9,658	

■ TIN ($ per tonne)

	Cash	3 mths
Close	6210-20	6250-55
Previous	6175-85	6215-20
High/low		6285/50
AM Official	6208-10	6245-50
Kerb close		6240-50
Open int.	15,824	
Total daily turnover	2,363	

■ ZINC, special high grade ($ per tonne)

	Cash	3 mths
Close	1041.5-2.5	1063-64
Previous	1053.5-4.5	1074-75
High/low		1071/59
AM Official	1041-41.5	1062-63
Kerb close		1059-60
Open int.	82,193	
Total daily turnover	18,358	

■ COPPER, grade A ($ per tonne)

	Cash	3 mths
Close	2568.5-70.5	2525-26
Previous	2562-64	2517-18
High/low		2530/18
AM Official	2567-68	2522-23
Kerb close		2528-27
Open int.	179,438	
Total daily turnover	58,899	

■ LME AM Official £/$ rate: 1.5374
LME Closing £/$ rate: 1.5410

Spot: 1.5401 3 mths: 1.5368 6 mths: 1.5342 9 mths: 1.5287

■ HIGH GRADE COPPER (COMEX)

	Sett price	Day's change	High	Low	Vol	Open int
Feb	117.10	+0.15	117.90	116.25	185	2,175
Mar	116.35	-0.10	117.30	115.80	3,124	21,621
Apr	115.15	-0.10	115.50	115.50	11	1,083
May	114.05	-0.10	114.80	113.30	213	8,880
Jun	112.75	-0.10	-	-	10	712
Jul	111.75	-0.10	112.50	111.50	154	3,037
Total					3,943	46,462

PRECIOUS METALS

■ LONDON BULLION MARKET
(Prices supplied by N M Rothschild)

Gold(Troy oz)	$ price	£ equiv	SFr equiv
Close	410.80-411.20		
Opening	412.20-412.60		
Morning fix	412.20	267.819	493.197
Afternoon fix	412.30	267.501	495.214
Day's High	412.70-413.10		
Day's Low	410.20-410.60		
Previous close	414.30-414.70		

Loco Ldn Mean Gold Lending Rates (Vs US$)

1 month	3.55	6 months	3.00
2 months	3.45	12 months	2.71
3 months	3.38		

Silver Fix	p/troy oz.	US cts equiv.
Spot	373.90	575.25
3 months	379.10	582.00
6 months	383.70	587.75
1 year	394.05	600.25

Gold Coins	$ price	£ equiv.
Krugerrand	411-414	267-269
Maple Leaf	422.35-425.00	
New Sovereign	96-99	62-64

Precious Metals continued

■ GOLD COMEX (100 Troy oz.; $/troy oz.)

	Sett price	Day's change	High	Low	Vol	Open int
Feb	412.0	-1.0	415.0	410.1	101	1,099
Apr	414.6	-1.3	418.3	412.5	35,478	129,774
Jun	417.2	-1.2	418.9	415.0	2,925	32,410
Aug	419.1	-1.0	419.8	417.7	930	10,995
Oct	421.0	-0.9	419.5	419.5	18	4,243
Dec	422.9	-0.8	424.0	420.8	829	13,158
Total					42,058	233,445

■ PLATINUM NYMEX (50 Troy oz.; $/troy oz.)

	Sett price	Day's change	High	Low	Vol	Open int
Apr	431.0	-2.0	433.0	427.5	3,180	18,199
Jul	433.3	-2.1	434.0	430.5	210	3,357
Oct	435.5	-1.9	436.0	433.5	119	1,335
Jan	437.5	-1.9	-	-	2	56
Total					3,509	22,947

■ PALLADIUM NYMEX (100 Troy oz.; $/troy oz.)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	142.05	-1.75	142.50	139.50	1,325	4,635
Jun	143.35	-1.85	144.00	141.25	152	2,471
Sep	144.75	-1.70	-	-	12	75
Dec	146.00	-1.70	-	-	13	57
Total					1,498	7,138

■ SILVER COMEX (5,000 Troy oz.; Cents/troy oz.)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	577.7	-3.8	582.0	572.0	16,534	64,999
May	582.9	-3.8	586.0	577.0	2,382	17,375
Jul	587.2	-3.8	588.0	581.5	651	8,515
Sep	591.6	-3.8	590.0	586.5	81	9,918
Dec	598.0	-3.8	598.0	581.0	150	5,963
Jan	600.8	-3.8	-	-	1	2
Total					19,809	111,126

ENERGY

■ CRUDE OIL NYMEX (42,000 US galls. $/barrel)

	Latest price	Day's change	High	Low	Vol	Open int
Mar	17.60	+0.08	17.64	17.43	35,366	75,178
Apr	17.22	+0.04	17.25	17.09	19,434	58,041
May	17.08	+0.06	17.10	16.97	7,676	42,736
Jun	17.00	+0.09	17.00	16.88	6,662	37,035
Jul	16.90	+0.06	16.95	16.83	3,869	28,096
Aug	16.83	+0.03	16.83	16.77	473	15,044
Total					80,575	400,151

■ CRUDE OIL IPE ($/barrel)

	Latest price	Day's change	High	Low	Vol	Open int
Mar	16.63	+0.09	16.70	16.43	12,520	45,804
Apr	16.18	+0.15	16.16	15.96	10,771	60,547
May	15.90	+0.12	15.90	15.72	2,236	19,913
Jun	15.70	+0.02	15.73	15.64	1,115	18,321
Jul	15.70	+0.10	15.70	15.60	675	7,973
Aug	15.59	+0.05	15.60	15.54	105	5,035
Total					54,140	186,745

■ HEATING OIL NYMEX (42,000 US galls.; c/US galls.)

	Latest price	Day's change	High	Low	Vol	Open int
Mar	51.00	-0.60	51.90	50.50	22,799	34,689
Apr	48.65	-0.16	49.00	48.40	7,312	15,952
May	47.05	-0.01	47.25	46.90	2,974	10,892
Jun	46.45	+0.14	46.50	46.20	1,495	10,591
Jul	46.45	+0.09	46.55	46.30	725	6,170
Aug	47.00	+0.14	47.00	46.90	341	5,207
Total					37,063	99,174

■ GAS OIL IPE ($/tonne)

	Sett price	Day's change	High	Low	Vol	Open int
Feb	165.75	-3.75	172.00	165.50	9,318	19,839
Mar	154.75	-1.25	156.75	154.25	7,682	19,996
Apr	148.50	-0.75	149.50	148.25	2,542	14,344
May	146.00	-0.50	146.75	145.50	252	5,000
Jun	145.00	-0.75	145.50	144.75	128	6,051
Jul	145.00	-0.75	145.25	145.25	1	4,795
Total					20,468	76,044

■ NATURAL GAS NYMEX (10,000 mmBtu.; $/mmBtu.)

	Latest price	Day's change	High	Low	Vol	Open int
Mar	2.375	+0.207	2.390	2.180	20,851	29,171
Apr	2.050	+0.073	2.055	1.957	5,660	18,203
May	1.970	+0.060	1.975	1.915	3,261	17,121
Jun	1.930	+0.043	1.930	1.890	1,402	11,935
Jul	1.910	+0.046	1.910	1.875	1,041	9,977
Aug	1.885	+0.036	1.885	1.870	413	8,366
Total					35,817	147,070

■ UNLEADED GASOLINE NYMEX (42,000 US galls.; c/US galls.)

	Latest price	Day's change	High	Low	Vol	Open int
Mar	52.00	-0.06	52.40	51.50	10,897	24,591
Apr	54.10	-0.03	54.45	53.75	4,060	16,625
May	54.10	+0.22	54.10	53.55	915	8,867
Jun	53.75	+0.32	53.75	53.10	427	5,127
Jul	52.90	+0.12	53.00	52.90	17	3,775
Aug	52.35	+0.17	52.40	52.25	106	2,698
Total					16,349	62,194

GRAINS AND OIL SEEDS

■ WHEAT LCE (£ per tonne)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	121.15	-1.30	122.00	121.05	718	2,170
May	122.90	-1.35	124.00	123.00	639	3,619
Jul	125.10	-1.10	125.85	124.95	118	520
Sep	111.50	-0.25	112.25	111.50	37	183
Nov	113.00	-0.25	113.05	112.80	119	1,316
Jan	114.75	-0.25	114.75	114.65	52	93
Total					1,683	7,906

■ WHEAT CBT (5,000bu min; cents/60lb bushel)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	522.50	+4.75	524.00	517.50	12,042	40,782
May	498.75	+8.00	498.00	488.00	2,973	15,348
Jul	457.00	+9.00	458.00	448.00	6,726	36,966
Sep	456.00	+7.00	456.00	448.50	427	7,026
Dec	463.75	+7.00	464.00	456.50	425	4,372
Jul	388.00	-	389.25	386.75	15	179
Total					22,607	104,677

■ MAIZE CBT (5,000 bu min; cents/56lb bushel)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	363.50	+2.00	363.75	359.25	37,162	169,043
May	367.25	+2.00	367.50	363.50	17,332	137,842
Jul	364.00	+1.75	364.25	360.75	8,879	91,975
Sep	313.25	+2.00	313.50	310.50	1,885	28,686
Dec	300.50	+1.75	300.75	298.00	6,236	62,028
Mar	306.00	+1.75	306.00	303.50	218	4,386
Total					71,846	498,046

■ BARLEY LCE (£ per tonne)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	112.75	-1.00	113.25	112.75	108	720
May	114.40	-1.10	115.25	114.50	13	388
Sep	107.90	-	-	-	-	29
Nov	110.00	-0.25	110.00	109.95	83	187
Jan	112.00	-1.50	-	-	-	32
Total					204	1,324

■ SOYABEANS CBT (5,000bu min; cents/60lb bushel)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	729.25	+5.50	730.00	721.50	28,353	73,743
May	738.00	+5.25	738.50	730.50	7,749	38,844
Jul	743.75	+6.00	744.50	735.00	5,641	35,421
Aug	743.25	+7.75	742.50	735.00	369	3,197
Sep	724.00	+8.00	725.00	716.25	233	3,017
Nov	713.00	+8.50	714.00	703.25	6,782	40,630
Total					48,371	198,219

■ SOYABEAN OIL CBT (60,000lbs; cents/lb)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	24.12	+0.03	24.13	23.97	4,751	36,337
May	24.46	+0.01	24.48	24.33	2,090	20,428
Jul	24.84	+0.04	24.85	24.70	1,253	15,426
Aug	24.98	+0.03	24.98	24.88	14	4,044
Sep	25.15	+0.05	25.16	25.05	61	2,077
Oct	25.27	+0.02	25.30	25.15	68	1,754
Total					8,384	86,565

■ SOYABEAN MEAL CBT (100 tons; $/ton)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	230.6	+1.5	230.7	228.2	10,786	37,470
May	233.8	+1.7	233.9	231.3	3,923	22,263
Jul	235.4	+2.1	235.6	232.7	1,897	18,263
Aug	236.0	+2.1	235.0	232.7	177	3,174
Sep	231.5	+1.5	231.5	229.7	382	2,588
Oct	226.1	+2.2	226.5	223.8	217	1,494
Total					17,622	90,412

■ POTATOES LCE (£/tonne)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	200.0	-	-	-	-	-
Apr	182.5	+8.5	180.0	178.0	23	922
May	200.0	+2.5	200.0	200.0	2	9
Jun	325.0	-	-	-	-	-
Nov	105.0	-	-	-	-	-
Total					25	963

■ FREIGHT (BIFFEX) LCE ($10/index point)

	Sett price	Day's change	High	Low	Vol	Open int
Feb	1389	-9	1395	1376	200	437
Mar	1380	-5	1381	1379	71	478
Apr	1381	-7	1384	1377	121	1,379
Jul	1282	-18	1298	1298	3	1,457
Oct	1330	-20	1350	1330	18	498
Jan	1368	+13	-	-	-	34
Total					413	4,307

	Close	Prev
BFI	1471	1481

FUTURES DATA
All futures data supplied by CMS.

Minor Metals
European free market, from Metal Bulletin. $ per lb in warehouse, unless otherwise stated (last week's in brackets, where changed). Antimony: 99.6%, $ per tonne, 3,375-3,450 (3,275-3,400). Bismuth: min. 99.99%, tonne lots 3.80-4.15 (3.65-4.15). Cadmium: min. 99.95%, 170-180 (180-195) cents a pound. Cobalt: MB free market, 99.8%, 31.25-32.00 (31.50-32.50); 99.3%, 27.80-28.30 (28.00-28.50). Mercury: min. 99.99%, $ per 76 lb flask, 150-170. Molybdenum: drummed molybdic oxide, 4.20-4.40. Selenium: min 99.5%, 3.70-4.40 (3.75-4.45). Tungsten ore: standard min. 65%, $ per tonne unit (10kg) WO₃, cif, 50-58. Vanadium: min. 98%, cif, 2.85-3.00. Uranium: Nuexco exchange value, 10.00.

SOFTS

■ COCOA LCE (£/tonne)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	910	+6	911	902	2,480	17,211
May	934	+9	934	925	2,126	18,710
Jul	956	+10	956	949	265	10,502
Sep	975	+8	975	970	109	35,383
Dec	994	+10	994	988	820	12,627
Mar	1014	+9	1016	1007	2,101	28,838
Total					7,916	131,110

■ COCOA CSCE (10 tonnes; $/tonnes)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	1287	+21	1289	1267	2,496	24,603
May	1312	+21	1313	1292	2,309	29,292
Jul	1332	+19	1334	1316	668	10,464
Sep	1351	+16	1353	1336	98	10,569
Dec	1380	+15	1375	1375	237	9,538
Mar	1412	+20	-	1392	201	7,247
Total					6,009	94,313

■ COCOA (ICCO) (SDR's/tonne)

Feb 5	Price	Prev. day
Daily	922.60	931.63

■ COFFEE LCE ($/tonne)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	2094	+48	2125	2045	1,988	15,975
May	1916	+44	1950	1873	2,081	12,024
Jul	1857	+38	1890	1820	507	4,074
Sep	1838	+43	1868	1797	156	2,317
Nov	1825	+41	-	-	-	1,074
Jan	1808	+25	-	-	24	102
Total					4,703	35,586

■ COFFEE 'C' CSCE (37,500lbs; cents/lbs)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	119.40	-1.25	127.50	118.75	4,248	12,778
May	117.00	-1.25	124.50	116.30	2,274	9,595
Jul	115.05	-1.95	122.50	114.25	414	3,354
Sep	114.45	-1.55	120.00	114.00	95	1,857
Dec	113.00	-1.50	119.40	113.00	40	1,176
Mar	113.00	-1.90	115.00	113.00	16	225
Total					7,074	29,022

■ COFFEE (ICO) (US cents/pound)

Feb 5	Price	Prev. day
Comp. daily	110.89	112.52
15 day average	106.28	105.24

■ No7 PREMIUM RAW SUGAR LCE (cents/lbs)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	10.90	-	-	-	-	-
May	11.40	-0.11	-	-	-	-
Jul	11.40	-0.11	-	-	-	-
Total					-	-

■ WHITE SUGAR LCE ($/tonne)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	369.7	+0.8	369.9	367.9	1,512	8,884
May	356.8	+1.9	357.0	353.5	1,248	11,634
Aug	339.3	+0.8	339.4	337.5	596	5,770
Oct	313.3	+0.8	312.9	311.2	525	3,900
Dec	304.2	+0.4	303.8	302.5	182	2,530
Mar	301.1	+0.3	300.5	300.0	71	587
Total					4,248	33,704

■ SUGAR '11' CSCE (112,000lbs; cents/lbs)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	12.00	-0.19	12.25	11.89	5,432	60,834
May	11.22	-0.09	11.32	11.08	2,878	34,291
Jul	10.41	-0.06	10.43	10.33	1,154	24,136
Oct	10.15	-0.01	10.18	10.05	622	22,664
Mar	9.97	+0.02	9.99	9.88	374	13,040
May	9.88	+0.04	9.88	9.81	113	1,876
Total					10,863	157,913

■ COTTON NYCE (50,000lbs; cents/lbs)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	84.10	-1.76	85.70	84.00	4,133	19,112
May	84.78	-1.60	86.20	84.60	1,990	15,541
Jul	85.08	-1.37	86.45	85.01	1,358	10,036
Oct	80.05	-0.05	80.05	79.75	246	1,963
Dec	77.60	-0.18	77.85	77.52	219	13,489
Mar	78.40	-0.10	-	-	1	1,009
Total					7,983	62,103

■ ORANGE JUICE NYCE (15,000lbs; cents/lbs)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	118.45	-2.65	122.25	117.60	5,691	12,643
May	120.55	-2.60	123.90	119.00	2,394	5,557
Jul	122.50	-2.25	125.00	122.50	236	1,685
Sep	123.50	-2.25	125.90	124.00	103	1,403
Nov	122.50	-1.00	124.00	122.50	40	569
Jan	123.50	-	124.00	122.50	88	1,497
Total					8,558	23,498

VOLUME DATA
Open interest and Volume data shown for contracts traded on COMEX, NYMEX, CBT, NYCE, CME and CSCE are one day in arrears.

INDICES

■ REUTERS (Base: 18/9/31=100)

Feb 6	Feb 5	month ago	year ago
2157.8	2177.8	2109.8	2235.8

■ CRB Futures (Base: 1967=100)

Feb 5	Feb 2	month ago	year ago
245.84	248.30	245.92	231.95

■ GSCI Spot (Base: 1970=100)

Feb 5	Feb 2	month ago	year ago
189.50	195.44	208.89	178.48

MEAT AND LIVESTOCK

■ LIVE CATTLE CME (40,000lbs; cents/lbs)

	Sett Price	Day's change	High	Low	Vol	Open int
Feb	63.850	-0.250	64.400	63.800	8,406	12,691
Apr	64.175	-0.425	64.750	64.125	8,461	33,608
Jun	62.075	-0.175	62.400	61.975	3,418	15,985
Aug	61.375	-0.075	61.525	61.300	1,492	7,901
Oct	62.400	-0.025	62.500	62.200	852	7,637
Dec	61.825	+0.025	61.900	61.700	665	3,992
Total					23,825	82,988

■ LIVE HOGS CME (40,000lbs; cents/lbs)

	Sett Price	Day's change	High	Low	Vol	Open int
Feb	47.275	+0.550	47.350	46.425	3,476	3,772
Apr	48.475	+0.800	48.500	45.300	3,456	14,125
Jun	51.775	+0.650	51.800	50.775	1,175	8,763
Jul	50.650	+0.800	50.675	49.600	457	2,754
Aug	49.300	+0.450	49.400	48.450	612	3,747
Oct	45.425	+0.425	45.525	44.700	384	1,627
Total					6,707	36,818

■ PORK BELLIES CME (40,000lbs; cents/lbs)

	Sett Price	Day's change	High	Low	Vol	Open int
Feb	55.600	+0.825	55.900	54.200	1,226	1,066
Mar	55.775	+0.725	56.050	54.250	1,012	2,826
May	56.250	+0.600	56.700	55.350	387	1,643
Jul	56.325	+0.350	56.675	55.450	105	1,144
Aug	53.000	+0.300	53.000	-	1	238
Total					2,731	6,915

LONDON TRADED OPTIONS

Strike price $ tonne	Calls		Puts	
■ ALUMINIUM (99.7%) LME	May	Jul	May	Jul
1500	126	151	19	19
1600	64	90	54	54
1700	26	49	115	115
■ COPPER (Grade A) LME	May	Jul	May	Jul
2400	155	143	38	73
2500	95	95	76	127
2600	53	59	132	189
■ COFFEE LCE	Mar	May	Mar	May
1500	594	264	-	1
1550	544	229	-	2
1600	494	197	-	4
■ COCOA LCE	Mar	May	Mar	May
900	19	50	-	-
925	6	36	-	-
950	5	24	-	-
■ BRENT CRUDE IPE	Mar	Apr	Mar	Apr
1650	30	31	-	-
1700	7	21	27	-
1750	-	7	-	-

LONDON SPOT MARKETS

■ CRUDE OIL FOB (per barrel/Mar)		+or-
Dubai	$15.43-5.50w	-0.08
Brent Blend (dated)	$16.86-6.88	-0.07
Brent Blend (Mar)	$16.61-6.63	
W.T.I.	$17.62-7.65w	+0.03

■ OIL PRODUCTS NWE prompt delivery CIF (tonne)		
Premium Gasoline	$165-167	-1.5
Gas Oil	$165-172	-9
Heavy Fuel Oil	$90-92	-9
Naphtha	$167-168	-2.5
Jet fuel	$185-190	-5.5
Diesel	$169-177	-6

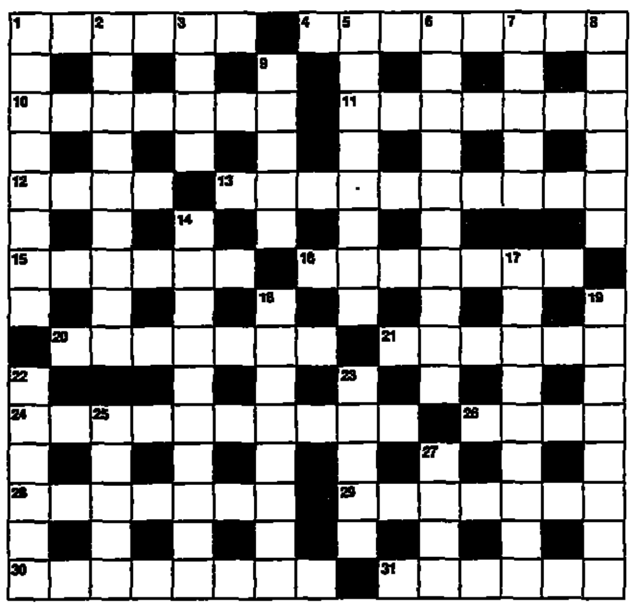
Petroleum Argus. Tel. London (0171) 359 8792

■ OTHER		
Gold (per troy oz)♣	$411.00	-3.50
Silver (per troy oz)♣	573.5c	-8.0
Platinum (per troy oz.)	$427.20	-4.30
Palladium (per troy oz.)	$139.50	-1.50
Copper	123.0c	
Lead (US prod.)	41.75c	
Tin (Kuala Lumpur)	15.72m	-0.09
Tin (New York)	294.50c	
Cattle (live weight)†	120.77p	-0.99*
Sheep (live weight)†♠	131.36p	-1.22*
Pigs (live weight)†	109.27p	-1.22*
Lon. day sugar (raw)	$317.7	-8.6
Lon. day sugar (wte)	$378.2	-0.4
Barley (Eng. feed)	121.5u	
Maize (US No3 Yellow)	150.5z	
Wheat (US Dark North)	Unq	
Rubber (Mar)♥	104.50p	-0.50
Rubber (Apr)♥	104.50p	-0.50
Rubber (KL RSS No1)	381.0m	-3.0
Coconut Oil (Phil)§	$742.5y	+2.5
Palm Oil (Malay.)§	$507.5y	-2.5
Copra (Phil)§	473.0y	-3.0
Soyabeans (US)	205.0u	-4.0
Cotton Outlook 'A' index	86.85	
Wooltops (64s Super)	446p	

£ per tonne unless otherwise stated. p pence/kg. c cents/lb. r ringgit/kg. m Malaysian cents/kg. z Jan. u Feb. ♥ w Mar. y Feb/Mar. x Oct/Dec London Physical. § CIF Rotterdam. ♣ Bullion market close. ♠ Sheep (Live weight prices). * Change on week † Prices are for previous day.

CROSSWORD

No.8,987 Set by CINEPHILE

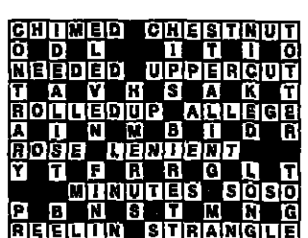


The paper is always the same

ACROSS
1 Plutocrat back to do article in paper (3,3)
4 Copper makes a lot of trouble in paper (8)
10 Give up goldfish 1 found in paper (7)
11 Side effects of vulgar greeting to the refined in paper (7)
12 Island of national importance (4)
13 Saint had a baby – spoilt part of the weekend (7,3)
15 Sign used for Greek and Russian characters? (6)
16 Supplier of bloomers for Asian primate in paper (7)
20 Revolutionary cooler – a warning to the Spanish in paper (3,4)
21 Deliver a prompt for the Sappers? (6)
24 Stress it's less than 20 (10)
26 More sanctimonious bearer of load? (4)
28 Winter wear for old city firm, first in paper (3,4)
29 Commotion caused by sovereign people in paper (7)
30 First, there's nothing about doctors in paper (8)
31 Good at writing part of clue not used in paper (6)

DOWN
1 Last letter of "ordinal" (8)
2 Spider at an ultra gathering (9)
3 See 22
5 Minced beef in buoyant motion becomes buoyant object (4,4)
6 Get down to brass tacks and gobble? (4,6)
7 Ring containing nothing like Humpty Dumpty (5)
8 Solver's in set-up for satellite (6)
9 Southernwood makes a tasty cut (5)
14 Logs take up ships' tie up, with space for junk (6,4)
17 Abuse as of grace with lies? (9)
18 Current that alternates between metal sheets makes peace (8)
19 A degree of sickness got a tear, sadly (8)
22, 3 Small English flag found waving in the Indian Ocean (4,2,4)
23 Note of collar of choirboy with harsh voice (5)
25 Artist that lasts? (5)
27 Spoken by the moral majority? (4)

Solution 8,986



CHIMED CHESTNUT
O D L I T I O
NEEDED UPPERCUT
T A Y H S A K T
ROLLEDUP ALLEGE
A I N M B I D R
ROSE LENIENT
Y T F R R G L T
MINUTES SOSO
P B N S T M N G
REELIN STRANGLE
I W S P A T S T
SEASHELL STITCH
E I E A E Q E
DELUDING PROPER

Investors cautious ahead of Treasury auctions

By Martin Brice in London and Lisa Bransten in New York

European government bond markets recovered some of their poise yesterday, but investors remained cautious ahead of the big bond auctions in the US.

■ News of weak retail sales helped US Treasury prices reverse some of Monday's losses in early trading, despite uncertainty about demand at the afternoon auction of $18.5bn of three-year notes.

Near midday, the benchmark 30-year Treasury was up ⅜ at 110¼ to yield 6.124 per cent, while at the short end of the maturity spectrum the two-year note was unchanged at 100⅞ to yield 4.916 per cent.

Strength among longer-term bonds led to a flattening of the yield curve, which fell 2 basis points to 121 points.

In general, Treasury prices fall in advance of auctions as dealers try to push up yields to make the securities more attractive to their customers. Yesterday, however, the market was cheered by a 0.3 per cent decline in chain store sales, recorded last week in the Mitsubishi-Schroder Wertheim index.

Also supportive to the market were signs of progress in the stalemate between President Bill Clinton and Congressional Republicans over how to balance the federal budget. On Monday, a bipartisan group of state governors proposed a plan to cut Medicaid – the federally-funded healthcare programme for the elderly that has been a key subject of wrangling in the budget battle.

GOVERNMENT BONDS

The dollar also recovered from Monday's weakness, although it remained below its highs of last week. In late Monday trading, the US currency was changing hands for DM1.4725 and Y105.49 compared with DM1.4675 and Y105.20.

■ German government bonds recovered some of the losses of Monday's sell-off, with the market supported by buying from Japan overnight and the US in the afternoon. However, the market still underperformed the US, with the spread over Treasuries increasing 2 basis points to 36.

"The market has gone down so hard that we are now getting a bit of an upwards movement," said Mr Karl Haeling, head of futures and options at Deutsche Morgan Grenfell in Frankfurt. He said with German unemployment statistics due for release this week, traders may have cause to cover their positions ahead of the data's release.

The curve steepened as the yield on two-year paper fell 1 basis point, and on the 10-year rose 2 basis points, with the spread between the two maturities settling at 228 basis points. On Liffe, the March 10-year bund future closed up 0.44 at 98.78. The yield spread of 10-year bunds over Treasuries widened 1 point to 35.

■ French government bonds outperformed bunds, largely on the back of domestic buying, with the spread over 10-year bunds narrowing 5 basis points to 39. This made a tightening of 9 basis points in two days. Mr Iain Lindsay at Crédit Lyonnais in Paris said the short end of the curve was supported by news that the French government was to debate European monetary union in February.

On Matif, the March future settled at 122.02, up 0.12. Yields fell along the curve, with the yield on 10-year paper easing 5 basis points; on one-year bonds, it eased 2 basis points. The spread between the two maturities settled at 192 points.

■ The high-yielding markets of Spain and Italy outperformed Germany, with both 10-year spreads tightening by 3 basis points, to 362 and 418, respectively. On Liffe, the March BTP future rose 0.31 to 111.71.

■ UK government bonds outperformed bunds, with the spread over 10-year paper tightening 2 basis points to 173, helped by manufacturing output figures that were weaker than expected.

Mr Andrew Milligan at New Japan Securities said: "This will provide further ammunition for the chancellor in seeking another rate cut, in March rather than this week."

The March future on Liffe closed at 109.01, up 0.17. The curve steepened slightly, with the two to 10 spread at around 134.

■ Swedish government bond markets enjoyed a less volatile day than Monday, although a weaker krona forced bonds down, with the spread over Germany widening 19 basis points to 274.

Traders reported curve steepening moves, largely by domestic investors, on the back of hopes of further reductions in the repo rate. The recent market movements following investors' doubts on domestic economic policy and fears of a debt downgrade had been overdone, they said.

Mr Bjorn Englund, analyst at Unibank in Copenhagen, expects a 25 basis point cut in the repo rate each month for the first five months of the year, settling at 7.25 per cent at year-end. However, despite the expectation of rate cuts he warned: "Risk-averse investors should stay out until at least the end of March – but for speculative investors there is a buying opportunity."

Belgian offering breaks sovereign issue drought

By Conner Middelmann

The Kingdom of Belgium yesterday launched its long-awaited $500m offering of five-year bonds, the first issue by a sovereign borrower in the dollar sector targeted at institutions since Canada's global deal last May.

"People aren't usually bowled over by Belgium, but we saw good demand for the deal as investors have been starved of sovereign paper," said one dealer.

Several factors have conspired to dampen sovereign issuance in the eurobond market: lower borrowings by governments keen to cut their budget deficits; cheap funding opportunities through syndicated loans last year; and the strength of many domestic government bond markets, which has meant that governments have not needed to venture abroad for funds.

The pricing of Belgium's bonds, at 17 basis points over Treasuries, was deemed fair and the spread held steady after the bonds were freed to trade. Lead manager Morgan Stanley reported strong sales to investors in Asia and the UK, as well as some Swiss retail demand.

INTERNATIONAL BONDS

Swiss retail investors were also the target of two rather more tightly-priced dollar deals: $250m of four-year bonds for the European Investment Bank and $250m of six-year bonds for GECC. As the EIB had not been to the dollar market since November 1994, the deal benefited from its relative rarity value in that sector, said Merrill Lynch, which led the issue with DKB. The GECC offering, meanwhile, was supported by investor demand for medium-dated corporate paper, lead manager SBC Warburg said.

Today, Korea's Export-Import Bank is expected to come to the market with $500m of global 10-year bonds via Lehman Brothers and Salomon Brothers. Price talk was of a spread over Treasuries in the high 70s.

Argentina, meanwhile, has appointed CS First Boston and Merrill Lynch to lead a $1bn five-year global bond, expected next week.

NEW INTERNATIONAL BOND ISSUES

Borrower	Amount m.	Coupon %	Price	Maturity	Fees %	Spread bp	Book runner
US DOLLARS							
Kingdom of Belgium	500	5.375	99.305R	Feb.2001	0.25R	+17(5¼%-01)	Morgan Stanley & Co Intl
GECC	250	5.50	99.76R	Feb.2002	0.275R	+18(5¼%-01)	SBC Warburg
European Investment Bank	250	5.00	99.20R	Mar.2000	0.225R	flat(i)	DKB Intl/Merrill Lynch
NGK Spark Plug Co(a)ф	200	3.00	100.00	Feb.2001	2.25	-	Nomura International
NGK Spark Plug Co(a)ф	200	2.25	100.00	Feb.2000	2.25	-	Yamaichi Intl(Europe)
D-MARKS							
Westfälische Hypo(b,p,s)	1bn	5.25	99.75	Mar.2001	0.25	-	BayHyp/Cmmrz/Deutsche/DG
Allgemeine Hypothekenbank(p)‡	300	(c)	100.185	Feb.1999	0.20	-	Commerzbank
Wüstenrot Hypothekenbank(p)‡	250	(d)	100.075	Sep.2001	0.20	-	Commerzbank
YEN							
EBRD★	20bn	3.18	100.20	Feb.2008	0.20	-	IBJ International
SWISS FRANCS							
GECC★	125	3.25	101.50	Mar.1999	1.25	-	Merrill Lynch Capital Mkts
GUILDERS							
Commerzbank	300	6.50	99.60R	Mar.2006	0.425R	+58(6%-06)	ING Barings
ITALIAN LIRE							
European Investment Bank(e)	450bn	zero	39.30	Feb.2006	0.50	-	Deutsche Morgan Grenfell
EBRD(f)	150bn	9.40	101.10	Mar.1999	1.25	-	Banco Nazionale de Lavoro
ECUS							
Bayerische Hypobank	55	(g)	101.464	Mar.2005	2.00	-	Kredietbank Intl Group
CANADIAN DOLLARS							
Südwestdeutsche LB Cap Mkts	125	8.375	99.90R	Feb.2002	0.275R	+11(7¼%-01)	CIBC Wood Gundy
SOUTH AFRICAN RAND							
International Finance Corp	250	13.00	101.25	Feb.1998	1.625	-	HSBC Markets
POLISH ZLOTYS							
International Finance Corp(h)	100	18.50	100.00R	Mar.1998	0.50R	-	JP Morgan Securities

Final terms, non-callable unless stated. Yield spread (over relevant government bond) at launch supplied by lead manager. ★Unlisted. фWith equity warrants. ‡ Floating-rate note. R: fixed re-offer price; fees shown at re-offer level. a) Fixing: 13/2/96. b) Fungible with DM1bn. Plus 68 days accrued. c) 3-mth Fibor flat. d) 3-mth Libor flat. e) L550bn launched 17/1/96 increased to L1,000bn. f) Callable on 4/3/97 & 98 at par. g) 6% to 18/3/99, then 7% to 18/3/02 & 8% thereafter. h) Coupon & principal paid in US$. i) Over interpolated yield. p) Oeffentliche Pfandbrief. s) Short 1st coupon.

M&A warrants from James Capel

By Antonia Sharpe

James Capel, the stockbroking arm of HSBC Holdings, yesterday launched a series of "basket" warrants designed to give investors exposure to merger and acquisition activity in the UK stock market. The total issue is worth about £82m.

Mr Alasdair Haynes, a director in charge of global equity derivatives at James Capel, said although there had been some over-the-counter products launched in recent months, these warrants were the first listed products to offer leverage to takeover situations.

With proposed bids totalling £41bn in 1995, a record year for takeovers in the UK market, M&A activity had a big impact on portfolio performance last year. James Capel said growing corporate cash piles and low borrowing rates would continue to provide fuel for further M&A activity in 1996.

Mr Haynes said the one-year warrants, on five capitalisation-weighted baskets representing different sectors, could be used for various investment strategies.

For example, an investor with an underweight position in stocks seen as in takeover situations could increase his leverage by buying the warrant rather than the stocks. The warrants could also be bought by an investor who wanted to sell the underlying stocks but not lose the economic effect of holding them.

The five baskets are: insurance, made up of Guardian Royal Exchange, Legal & General, Refuge, United Friendly and London & Manchester; banking, with Abbey National, Standard Chartered, Royal Bank of Scotland and Bank of Scotland; financial, including the same stocks as the insurance and banking baskets, and Mercury Asset Management; mixed, made up of Allied Domecq, Ladbrokes, Zeneca, Argyll and C&W; and utility, with Southern Electricity, London Electricity, Midlands Electricity, Northern Electricity, Yorkshire Water, Southern Water and Wessex Water.

First zloty eurobond

By Conner Middelmann

The Polish zloty yesterday joined the rapidly expanding range of currencies in which borrowers can raise money in the eurobond market.

The sector was inaugurated by the International Finance Corporation, the private-sector arm of the World Bank group, which issued 100m zloty of two-year bonds via J. P. Morgan. The proceeds of the offering were swapped into floating-rate dollars, according to the IFC.

The bonds, which carry a coupon of 18.5 per cent, were aimed largely at retail investors in Germany, Austria, Switzerland and the Benelux, who are keen on high coupons but do not have custodial arrangements in Poland and therefore have no access to the domestic Polish T-bill market. Moreover, J. P. Morgan was targeting institutional investors who are already active in the T-bill market, but who want to extend maturities.

"This deal is very much along the lines of the IFC's long tradition in developing the fixed-income side of emerging markets, which is part of our mandate of private-sector development," said Ms Ritva Laukkanen, senior financial officer at the IFC.

The coupon and principal on the bonds will be paid in US dollars, as Polish foreign exchange regulations restrict the outflow of zlotys.

WORLD BOND PRICES

BENCHMARK GOVERNMENT BONDS

		Coupon	Red Date	Price	Day's change	Yield	Week ago	Month ago
Australia		10.000	02/06	112.5120	–0.070	8.15	8.17	8.48
Austria		6.500	11/05	100.6200	–0.080	6.41	6.19	6.39
Belgium		6.500	03/05	103.0800	+0.240	6.05	6.36	6.72
Canada *		8.750	12/05	111.4300	+0.240	7.11	7.07	7.11
Denmark		8.000	03/06	104.5400	–0.120	7.34	7.07	7.27
France	BTAN	7.000	10/00	106.1250	+0.380	5.45	5.39	5.90
	OAT	7.250	03/06	105.3000	+0.490	6.52	6.38	6.66
Germany Bund		6.000	01/06	99.3500	+0.260	6.09	5.88	6.05
Ireland		8.000	08/06	103.4600	+0.380	7.50	7.34	7.59
Italy		10.500	09/05	102.5500	+0.050	10.08†	10.02	10.59
Japan	No 129	6.400	03/00	117.2570	–0.190	1.67	1.60	1.70
	No 174	4.600	09/04	111.2040	–0.080	2.97	2.98	2.93
Netherlands		6.000	01/06	98.9200	+0.220	6.15	5.90	6.06
Portugal		11.875	02/05	113.8000	+0.040	9.53	9.45	9.84
Spain		10.150	01/06	101.4000	–0.790	9.74	9.53	9.69
Sweden		6.000	02/05	82.7670	–0.910	8.86	8.38	8.54
UK Gilts		8.000	12/00	104–05	+8/32	6.96	6.76	6.77
		7.500	12/06	98–20	+12/32	7.69	7.43	7.40
		9.000	10/08	109–09	+12/32	7.83	7.59	7.56
US Treasury *		5.875	11/05	101–18	+11/32	5.66	5.62	5.65
		6.875	08/25	110–08	+24/32	6.13	6.04	6.01
ECU (French Govt)		7.500	04/05	103.6400	+0.070	6.95	6.81	7.00

London closing, *New York mid-day. Yields: Local market standard.
† Gross (including withholding tax at 12.5 per cent payable by nonresidents)
Prices: US, UK in 32nds, others in decimal. Source: MMS International

US INTEREST RATES

Latest

Prime rate	8½
Broker loan rate	7¼
Fed.funds	5⅜
Fed.funds at intervention	-

Treasury Bills and Bond Yields

One month	5.25	Two year	4.93
Two month	5.09	Three year	5.04
Three month	4.99	Five year	5.29
Six month	4.97	10-year	5.67
One year	4.88	30-year	6.13

BOND FUTURES AND OPTIONS

France

■ NOTIONAL FRENCH BOND FUTURES (MATIF) FFr500,000

	Open	Sett price	Change	High	Low	Est. vol.	Open int.
Mar	121.60	121.90	+0.24	122.00	121.84	165,807	141,466
Jun	121.98	122.26	+0.22	122.30	122.30	579	17,178
Sep	120.78	121.04	+0.20	121.12	120.78	17	2,301

■ LONG TERM FRENCH BOND OPTIONS (MATIF)

Strike Price	CALLS Mar	CALLS Jun	CALLS Sep	PUTS Mar	PUTS Jun	PUTS Sep
120	2.08	-	-	0.16	0.78	-
121	-	2.19	-	0.39	1.14	1.14
122	0.63	1.66	-	0.75	1.51	-
123	0.23	1.22	-	1.30	-	-
124	0.07	0.81	-	-	-	-

Est. vol. total, Calls 26,891 Puts 12,196. Previous day's open int., Calls 194,727 Puts 188,078.

Germany

■ NOTIONAL GERMAN BUND FUTURES (LIFFE)* DM250,000 100ths of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Mar	98.60	98.67	+0.33	98.88	98.33	237533	238493
Jun	97.80	97.84	+0.32	98.00	97.60	3885	13713

■ BUND FUTURES OPTIONS (LIFFE) DM250,000 points of 100%

Strike Price	CALLS Mar	CALLS Apr	CALLS May	CALLS Jun	PUTS Mar	PUTS Apr	PUTS May	PUTS Jun
9850	0.65	0.56	0.80	0.99	0.48	1.22	1.46	1.65
9900	0.40	0.38	0.60	0.78	0.73	1.54	1.76	1.94
9950	0.22	0.25	0.44	0.61	1.05	1.91	2.10	2.27

Est. vol. total, Calls 42899 Puts 38179. Previous day's open int., Calls 274143 Puts 219195

Italy

■ NOTIONAL ITALIAN GOVT. BOND (BTP) FUTURES (LIFFE)* Lira 200m 100ths of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Mar	111.25	111.72	+0.32	111.91	111.08	49878	61367
Jun	110.92	111.24	+0.32	111.30	110.90	433	4567

■ ITALIAN GOVT. BOND (BTP) FUTURES OPTIONS (LIFFE) Lira200m 100ths of 100%

Strike Price	CALLS Mar	CALLS Jun	PUTS Mar	PUTS Jun
11150	0.99	2.13	0.77	2.39
11200	0.74	1.88	1.02	2.64
11250	0.52	1.65	1.30	2.91

Est. vol. total, Calls 3109 Puts 4857. Previous day's open int., Calls 83416 Puts 74227

Spain

■ NOTIONAL SPANISH BOND FUTURES (MEFF)

	Open	Sett price	Change	High	Low	Est. vol.	Open int.
Mar	95.30	95.61	+1.03	95.65	95.16	65,428	53,994
Jun	95.25	95.35	+0.27	95.25	95.25	4	3

UK

■ NOTIONAL UK GILT FUTURES (LIFFE)* £50,000 32nds of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Mar	108-19	108-29	+0-13	109-04	108-15	65792	141645
Jun	108-03	108-06	+0-13	108-06	108-01	64	1452

■ LONG GILT FUTURES OPTIONS (LIFFE) £50,000 64ths of 100%

Strike Price	CALLS Mar	CALLS Apr	CALLS May	CALLS Jun	PUTS Mar	PUTS Apr	PUTS May	PUTS Jun
108	1-22	1-20	1-45	2-00	0-28	1-08	1-33	1-52
109	0-47	0-54	1-14	1-33	0-53	1-42	2-02	2-21
110	0-22	0-33	0-55	1-07	1-28	2-21	2-43	2-59

Est. vol. total, Calls 7132 Puts 1860. Previous day's open int., Calls 37010 Puts 30357

Ecu

■ ECU BOND FUTURES (MATIF) ECU100,000

	Open	Sett price	Change	High	Low	Est. vol.	Open int.
Mar	90.50	90.72	+0.14	90.96	90.40	2,288	8,650

US

■ US TREASURY BOND FUTURES (CBT) $100,000 32nds of 100%

	Open	Latest	Change	High	Low	Est. vol.	Open int.
Mar	119–20	119–25	+0–06	119–29	119–14	338,389	328,389
Jun	119–04	119–08	+0–06	119–12	118–31	13,896	36,925
Sep	118–26	118–22	+0–07	118–26	118–17	46	6,109

Japan

■ NOTIONAL LONG TERM JAPANESE GOVT. BOND FUTURES (LIFFE) Y100m 100ths of 100%

	Open	Close	Change	High	Low	Est. vol	Open int.
Mar	119.98	-	-	120.00	119.90	1824	0
Jun	118.49	-	-	118.49	118.41	392	0

* LIFFE futures also traded on APT. All Open interest figs. are for previous day.

FT-ACTUARIES FIXED INTEREST INDICES

Price Indices UK Gilts	Tue Feb 6	Day's change %	Mon Feb 5	Accrued interest	xd adj. ytd
1 Up to 5 years (22)	123.40	+0.13	123.24	2.61	0.45
2 5-15 years (21)	149.55	+0.32	149.07	3.09	0.00
3 Over 15 years (8)	164.06	+0.47	163.31	2.89	1.02
4 Irredeemables (6)	187.44	+0.29	186.89	2.72	0.00
5 All stocks (57)	144.30	+0.28	143.89	2.92	0.34
Index-linked					
6 Up to 5 years (1)	197.94	+0.07	197.81	2.50	0.00
7 Over 5 years (11)	187.28	+0.15	186.99	1.34	0.00
8 All stocks (12)	187.39	+0.15	187.11	1.37	0.00

	Low coupon yield Feb 6	Feb 5	Yr. ago	Medium coupon yield Feb 6	Feb 5	Yr. ago	High coupon yield Feb 6	Feb 5	Yr. ago
5 yrs	7.05	7.10	8.46	7.09	7.14	8.48	7.16	7.22	8.65
15 yrs	7.89	7.94	8.37	7.93	7.98	8.49	8.03	8.07	8.68
20 yrs	7.99	8.04	8.34	8.02	8.06	8.49	8.11	8.15	8.59
Irred.†	8.09	8.12	8.41						

	Inflation 5% Feb 6	Feb 5	Yr. ago	Inflation 10% Feb 6	Feb 5	Yr. ago
Up to 5 yrs	2.61	2.63	3.69	1.39	1.41	2.43
Over 5 yrs	3.66	3.67	3.85	3.47	3.48	3.56

Average gross redemption yields are shown above. Coupon Bands: Low: 0%-7¾%; Medium: 8%-10¾%; High: 11% and over. † Flat yield. ytd Year to date.

FT FIXED INTEREST INDICES

	Feb 6	Feb 5	Feb 2	Feb 1	Jan 31	Yr ago	High*	Low*
Govt. Secs. (UK)	94.47	94.19	94.88	95.29	95.31	92.12	96.34	90.22
Fixed Interest	112.81	113.43	113.88	113.85	114.07	109.74	115.23	108.77

GILT EDGED ACTIVITY INDICES

	Feb 5	Feb 2	Feb 1	Jan 31	Jan 30
Gilt Edged bargains	116.5	91.5	86.2	138.4	119.6
5-day average	110.4	106.0	107.2	108.4	97.6

*for 1995/96. Government Securities high since compilation: 127.40 (9/1/35), low 49.18 (3/1/75). Fixed Interest high since compilation: 133.87 (21/1/94), low 50.53 (3/1/75). Basis 100: Government Securities 15/10/26 and Fixed Interest 1928. SE activity indices rebased 1974.

FT/ISMA INTERNATIONAL BOND SERVICE

Listed are the latest international bonds for which there is an adequate secondary market. Latest prices at 7:05 pm on February 6

	Issued	Bid	Offer	Chg.	Yield
U.S. DOLLAR STRAIGHTS					
Abbey Natl Treasury 5 97	1000	99⅞	100	+⅛	5.13
Abbey Natl Treasury 6½ 03	1000	102⅜	102⅝	+¼	6.08
ABN Amro Bank 7¼ 05	1000	106⅞	107¼	+⅛	6.36
African Dev Bk 7⅜ 23	*500*	*105¼*	*105⅝*	*+⅝*	*6.87*
Alberta Province 7⅝ 98	1000	105⅞	106⅛		5.26
Asian Dev Bank 6¼ 05	750	102⅛	102⅜	+⅛	6.05
Austria 8½ 00	400	110⅜	110⅝	+⅛	5.52
Baden-Wuert L-Fin 8⅛ 00	1000	109	109¼		5.54
Bank Ned Gemeenten 7 99	1000	105	105¼		5.40
Bayer Vereinsbk 8⅛ 00	500	108¾	109	+⅛	5.61
Belgium 5½ 03	1000	97	97¼		5.99
BFCE 7¾ 97	150	102⅝	102⅞		5.18
British Columbia 7¾ 02	500	109¾	110⅛		5.86
British Gas 0 21	1500	14⅝	15⅛	+⅜	7.75
Canada 6½ 97	2000	101⅞	102		5.07
Cheung Kong Fin 5½ 98	500	97⅝	98⅛	+⅛	6.48
China 6½ 04	1000	98¼	99		6.90
Credit Foncier 9½ 99	300	111¼	111⅝	+⅛	5.39
Denmark 5¾ 98	1000	101⅜	101⅝		5.03
East Japan Railway 6⅝ 04	600	102⅞	103⅛	+¼	6.16
EIB 6 04	500	100¼	100½	+⅛	5.96
EIB 9¼ 97	1000	106⅞	107⅛		5.08
Elec de France 9 98	200	107⅜	107⅝		5.20
Ex-Im Bank Japan 8 02	500	111⅜	111⅝	+⅛	5.78
Export Dev Corp 9½ 98	150	109¼	109⅝		5.32
Fed Home Loan 7⅛ 99	1500	105¾	106		5.35
Federal Natl Mort 7.40 04	1500	109⅝	109⅞	+⅛	6.02
Finland 6¾ 97	3000	103	103⅛		5.04
Ford Motor Credit 6¼ 98	1500	101⅞	102⅛		5.34
Ind Bk Japan Fin 7⅞ 97	200	102¾	103		5.41
INI Finance 5¼ 98	650	99⅞	100⅛		5.29
Inter-Amer Dev 7½ 05	500	109⅝	109⅞	+⅛	6.09
Intl Finance 5¼ 99	500	100¼	100⅝	-⅛	5.15
Italy 6 03	2000	99½	99¾	+⅛	6.17
Italy 6⅞ 23	3500	98½	98⅞	+¼	7.30
Japan Dev Bk 8⅜ 01	500	111½	111⅞		5.68
Korea Elec Power 6⅜ 03	1350	99¾	100¼	+¼	6.52
Matsushita Elec 7¼ 02	1000	107⅛	107½		6.00
Norway 7¼ 97	1000	102⅜	102⅝		5.12
Ontario 7⅜ 03	3000	108	108¼	+⅛	6.04
Oster Kontrollbank 8½ 01	200	112¼	112⅝		5.68
Portugal 5¾ 03	1000	98⅞	99⅛	+⅛	6.02
Quebec Hydro 9¾ 98	150	109¾	110¼	-⅛	5.68
Quebec Prov 9 98	200	106⅞	107¼		5.53
SAS 10 99	200	111¾	112¼	-⅛	5.70
SNCF 9½ 98	150	109⅛	109⅜		5.30
Spain 6½ 99	1500	103⅜	103⅝	-⅛	5.44
Sweden 6½ 03	2000	103⅝	103⅞	+¼	5.95
Tennessee Valley 6 00	1000	102¼	102⅜	+⅛	5.53
Tennessee Valley 6¾ 05	2000	103	103¼	+¼	6.04
Tokyo Elec Power 6⅛ 03	1000	100⅝	100⅞	+⅛	6.01
Toyota Motor 5⅝ 98	1500	101⅛	101½		5.04
United Kingdom 7¼ 02	3000	108⅛	108⅜		5.77
World Bank 6⅜ 05	1500	103⅛	103½	+⅛	5.89
World Bank 8⅜ 99	1500	110⅛	110½		5.28
World Bank 8¾ 97	1500	104	104¼		4.92
DEUTSCHE MARK STRAIGHTS					
Austria 6½ 24	2000	92⅛	92⅞	-½	7.16
Baden-Wuert L-Finance 6 99	2000	103⅞	104⅛	-¼	4.68
Credit Foncier 7¼ 03	3000	97¼	97½	-⅝	7.77
Denmark 6⅛ 98	*2000*	*104¼*	*104⅝*	*-⅛*	*4.05*
Depfa Finance 6⅜ 03	1500	100½	100⅝	-⅛	6.28
Deutsche Bk Fin 7½ 03	2000	106	106⅜	+¼	6.41
EEC 6½ 00	2900	105⅛	105¼		5.08
EIB 6¼ 00	1500	104⅛	104⅜	-⅛	5.12
Finland 7½ 00	3000	105⅜	105⅝		5.12
Italy 7¼ 98	5000	105⅞	106	-⅛	4.14
LKB Baden-Wuert 6½ 08	2250	98⅝	98⅞	+⅛	6.68
Norway 6¼ 98	1500	104¼	104½	-¼	4.10
Ontario 6¼ 04	1500	99⅛	99⅜	-¼	6.39
Spain 7¼ 03	4000	106¼	106¾	-¼	6.13
Sweden 8 97	2500	106¾	106⅞	-⅛	3.91
United Kingdom 7¼ 97	5500	105½	105⅝		3.76
Volkswagen Intl Fin 7 03	1000	103⅜	103⅞	-½	6.38
World Bank 0 15	2000	29⅜	29⅝	-¼	6.36
World Bank 5⅞ 03	*3000*	*99¼*	*99¾*	*-¼*	*5.99*
SWISS FRANC STRAIGHTS					
Asian Dev Bank 0 16	500	34½	34½	-1½	5.46
Austria 4½ 00	1000	104⅝	104⅝	-1	3.25
Council Europe 4¾ 98	250	103¾	104⅛	-¾	2.82
Denmark 4¼ 99	1000	103⅞	103⅞	-1	3.11
EIB 3¼ 99	1000	102⅝	102⅞	-⅞	2.82
EIB 6¾ 04	300	112¾		-¾	4.91
Finland 7¼ 99	300	112½	112½	-½	3.55
Iceland 7⅜ 00	100	114½	114½	+¾	4.02
Inter Amer Dev 4¾ 03	600	102½	103	-½	4.35
Ontario 6¼ 03	400				
Quebec Hydro 5 08	100	99½	100	-½	5.05
SNCF 7 04	450	117½	117½		4.51
Sweden 4¾ 03	500	101	101	-1¾	4.59
World Bank 0 21	700	25	25½	-1	5.52
World Bank 7 01	600	114	115	-¾	3.91
YEN STRAIGHTS					
Belgium 5 99	75000	111⅛	111⅜		1.98
Credit Foncier 4¾ 02	75000	101¾	102	-⅛	4.43
EIB 6⅝ 00	100000	117⅝	117⅞	-⅛	2.10
Ex-Im Bank Japan 4⅜ 03	105000	108¾	109	-⅛	3.07
Inter Amer Dev 7¼ 00	30000	120⅝	120⅞	-⅛	2.15
Italy 3½ 01	300000	104	104⅛		2.71
Japan Dev Bk 5 99	100000	111⅛	111¼		1.82
Japan Dev Bk 6½ 01	120000	120¼	120½	-⅛	2.58
Norway 5⅛ 97	150000	104¾	104⅞		0.70
SNCF 6¾ 00	30000	118	118⅛	-⅛	2.09
Spain 5¾ 02	125000	116½	116¾	-⅛	2.78
Sweden 4⅝ 98	150000	105¾	105⅞		1.18
World Bank 5¼ 02	250000	114⅝	114⅞	-⅛	2.65
OTHER STRAIGHTS					
Finland 8 04 LFr	5000	107	108		6.88
Genfinance Lux 9¼ 99 LFr	1000	108½			6.09
IKB Deut Industbk 8½ 03 LFr	3000	107	108		7.18
ABN Amro 6⅝ 00 Fl	1000	105	105¼	-1	5.25
Bank Ned Gemeenten 7 03 Fl	1500	105½	105⅞	-⅝	6.02
Bell Canada 10⅝ 99 C$	150	112⅜	112⅞	+⅛	6.47
British Columbia 7¾ 03 C$	1250	103¾	104		7.21
Canada Mtg & Hsg 8¼ 99 C$	1000	105⅝	107		6.21
EIB 10⅛ 98 C$	130	108⅝	109⅜	+⅛	5.83
Elec de France 9¾ 99 C$	275	111	111⅜	+⅛	6.21
KfW Int Fin 10 01 C$	400	113⅝	114⅛	+¼	6.74
Nippon Tel Tel 10¼ 99 C$	200	112⅝	113	+¼	6.30
Ontario 8 03 C$	1500	104¾	105	+⅛	7.25
Ontario Hydro 10⅞ 99 C$	500	113	113⅜	+⅛	6.19
Oster Kontrollbank 10¼ 99 C$	150	112¼	112¾	+⅜	6.30
Quebec Hydro 7 04 C$	1000	96	96¼		7.80
Quebec Prov 10½ 98 C$	200	110⅞	111¼	+⅛	6.16
Council Europe 9 01 Ecu	1100	112⅛	112½	-⅛	6.41
Credit Foncier 8⅜ 04 Ecu	1000	98⅛	98⅝	+½	8.70
Denmark 8½ 02 Ecu	1000	110⅛	110½	+⅛	6.41
EC 6 00 Ecu	1000	100¾	101	-⅛	5.81
EIB 10 97 Ecu	1125	105⅛	105⅝	+⅛	4.50
Ferro del Stat 10⅛ 98 Ecu	500	108⅝	109		5.28
Italy 10¾ 00 Ecu	*1000*	*116⅜*	*116⅝*		*6.19*
United Kingdom 9⅛ 01 Ecu	2750	112⅞	113	+⅛	6.08
AIDC 10 99 A$	100	106¼	106¾		7.79
Comm Bk Australia 13¾ 99 A$	100	117¾	118¼		7.89
EIB 7¾ 99 A$	350	102	102½	-⅛	7.21
NSW Treasury Zero 0 20 A$	1000	13⅛	13⅝	-⅛	8.53
R & I Bank 7¾ 03 A$	125	97⅛	97½	+½	8.27
State Bk NSW 9 02 A$	300	104⅛	104⅝	+⅛	8.15
Sth Aust Govt Fin 9 02 A$	150	103¾	104¼	+⅛	8.23
Unilever Australia 12 98 A$	150	108	108½		7.82
Western Aust Treas 7¾ 98 A$	100	99⅞	100⅛	-⅛	7.66
Abbey Natl Treasury 8 03 £	1000	100¼	100⅜	+⅛	7.95
Alliance Leics 11⅜ 97 £	100	105¾	106⅛		6.41
British Land 8⅞ 23 £	150	91¼	91¾	+¼	10.04
Denmark 6¾ 98 £	800	100	100¼		6.73
EIB 8 03 £	1000	101½	101⅝	+⅛	7.71
Halifax 10⅜ 97 £	100	104	104⅜		6.39
Hanson 10⅜ 97 £	500	105½	105¾		6.81
HSBC Holdings 11.69 02 £	153	116¼	116⅝	+¼	8.32
Italy 10½ 14 £	400	112	112½	+⅛	9.12
Japan Dev Bk 7 00 £	200	99⅜	99⅝	+⅛	7.15
Land Secs 9½ 07 £	200	105	105⅜	+⅛	8.77
Ontario 11⅛ 01 £	100	114	114⅜	+⅛	7.85
Powergen 8⅞ 03 £	250	104	104¼	+¼	8.11
Severn Trent 11½ 99 £	150	112¼	112½	+⅛	7.30
Tokyo Elec Power 11 01 £	150	114¼	114⅝	+⅛	7.83
TCNZ Fin 9¼ 02 NZ$	75	109⅜	109⅞		7.54
World Bank 12½ 97 NZ$	250	105⅜	105⅞		7.97
Credit Local 6 01 FFr	7000	99¾	99⅞	-¼	6.05
Elec de France 8¾ 22 FFr	3000	115⅛	115½	-⅜	7.42
SNCF 9¼ 97 FFr	4000	105	105¼		4.77

FLOATING RATE NOTES

	Issued	Bid	Offer	C.cpn
Abbey Natl Treasury -1/16 99	1000	99.82	99.90	5.7500
Bankamerica ⅛ 99	750	99.65	99.84	5.9375
Belgium 1/16 97 DM	500	100.04	100.15	4.4375
Canada -⅛ 99	2000	99.51	99.58	5.6250
CCCE 0 06 Ecu	200	99.44	99.59	5.2812
Commerzbk O/S Fin -⅛ 98	750	99.74	99.81	5.7[illegible]
Credit Lyonnais 1/16 00	300	97.86	98.30	5.5000
Credit Lyonnais 0.30 98	1250	100.05	100.13	5.7414
Denmark -⅛ 97	1000	100.00	100.05	5.6875
Dresdner Finance 1/16 98 DM	1000	100.03	100.12	3.4688
Ferro del Stat 0.10 97	420	100.07	100.22	5.7500
Finland 0 97	1000	100.15	100.21	5.4492
Finland -⅛ 99	1500	99.77	99.84	5.1875
IMI Bank Intl ¼ 99	500	100.14	100.24	8.1250
Italy 1/16 99	1500	99.90	99.97	5.5825
Italy ¼ 98	2000	100.07	100.15	5.9375
LKB Baden-Wuert Fin -⅛ 98	1000	99.93	99.99	5.6875
Lloyds Bank Perp S 0.10	600	82.25	83.00	5.9855
Malaysia 1/16 05	650	99.45	99.65	6.0000
New Zealand -⅛ 99	1000	99.88	99.96	5.4805
Nova Scotia 1/16 99	500	99.97	100.06	6.0625
Ontario 0 99	2000	99.86	99.94	5.6750
Renfe 0 98	500	99.77	99.89	5.6250
State Bk Victoria 0.05 99	125	99.99	100.11	5.8672
Sweden 0 98	1500	100.03	100.08	5.6750
Sweden -⅛ 01	2000	99.66	99.71	5.7500

CONVERTIBLE BONDS

	Issued	Conv. Price	Bid	Offer	Prem.
Chubb Capital 6 98	250	86	114½	115½	-0.79
Gold Kalgoorlie 7½ 00	65	1.37	124¼	125½	+11.24
Grand Metropolitan 6½ 00	710	4.37	112⅞	113¾	+17.10
Hanson 9½ 06 £	500	2.48	100⅝	101¼	+29.64
Hanson America 2.39 01	420	29.6375	82⅞	88⅞	+63.75
Hong Kong Land 4 01	410	31.05	87¾	88¾	-12.40
Land Secs 6¾ 02 £	84	6.72	98	100¼	+8.39
Lasmo 7¾ 05 £	90	5.64	90⅛	91⅝	
Mitsu Bank 2⅝ 03	200	2332.6	85⅞	87¾	+34.66
Mount Isa Fin 6½ 97	100	2.283	99½	100½	+78.92
Natl Power 6¼ 08 £	250	4.33	107¼	108¾	+2.54
Ogden 6 02	85	39.077	95½	97½	+64.04
Pennzoil 4¾ 03	500	58.8097	102¾	103¾	+15.65
Sappi BVI Finance 7½ 02	250	78	95⅛	96¾	+63.27
Sumitomo Bank 3¾ 04	300	3606.9	87¼	88¼	+28.83
Sun Alliance 7¼ 08 £	155	3.9	104⅞	105⅞	+9.36
Transatlantic Hldgs 5½ 09 £	250	5.05	77⅛	78½	+13.55

* No information available - previous day's price
‡ Only one market maker supplied a price

STRAIGHT BONDS: The yield is the yield to redemption of the bid-price; the amount issued is in millions of currency units. Chg. day=Change on day
FLOATING RATE NOTES: Denominated in dollars unless otherwise indicated. Coupon shown is minimum. Spread=Margin above six-month offered rate (‡three-month $above mean rate) for US dollars. C.cpn=The current coupon.
CONVERTIBLE BONDS: Denominated in dollars unless otherwise indicated. Cnv. price=Nominal amount of bond per share expressed in currency of share at conversion rate fixed at issue. Prem=Percentage premium of the current effective price of acquiring shares via the bond over the most recent price of the shares.

UK GILTS PRICES

	Notes	Yield Int	Yield Red	Price £	+ or –	52 week High	52 week Low
Shorts" (Lives up to Five Years)							
15¼pc 1996‡‡		14.93	6.08	102 3/32	—	109	102 3/32
Exch 13¼pc 1996‡‡		13.00	6.15	101 13/32	—	106 13/32	101 13/32
Conversion 10pc 1996		9.71	5.81	103	—	104 13/32	103
Treas 13¼pc 1997‡‡		12.42	5.93	106 23/32	—	109 23/32	106 23/32
Exch 10½pc 1997		10.05	5.93	104 15/32	—	105 15/32	104 1/32
Treas Cnv 7pc 1997‡‡		6.91	6.05	101 3/32xd	+1/32	101 15/32	97 3/32
Treas 8¾pc 1997‡‡		8.42	6.08	103⅞	+1/16	104 7/32	100 3/16
Exch 15pc 1997		13.14	6.16	114⅛	+1/16	117 7/16	114 3/16
9¾pc 1998		9.18	6.28	106¼	+⅛	107 3/16	102¾
Treas 7¼pc 1998‡‡		7.12	6.33	101 13/32	+1/16	102 3/16	96 13/32
Treas 6¾pc 1995-98‡‡		6.74	6.63	100 3/16	—	100 3/16	94⅞
Treas 15½pc '98‡‡		12.76	6.51	121½	+3/16	124⅛	120⅛
Exch 12pc 1998		10.57	6.57	113 7/16	+3/16	114⅝	109 11/16
Treas 9½pc 1999‡‡		8.83	6.62	107 9/16	+3/16	108 7/16	102 11/16
Treas Flg Rate 1999		–	–	100 3/16	—	100 13/32	99⅞
Exch 12¼pc 1999		10.61	6.70	115 13/32	+3/16	116 23/32	111 1/16
Treas 10½pc 1999		9.46	6.73	110 13/32	+7/32	112 3/16	105¾
Treas 6pc 1999‡‡		6.14	6.76	97 13/32xd	+⅛	98 15/32	90 1/16
Conversion 10¼pc 1999		9.22	6.86	111⅛	+1/16	112 11/16	105⅛
Conv 9pc 2000‡‡		8.39	6.91	107¼	+3/16	108 17/32	100 13/32
Treas 13pc 2000		10.61	6.96	122 7/16	+¼	124 13/32	117
14pc 1998-1		12.08	6.42	115 13/32	+3/16	117¾	114 3/16
Treas 8pc 2000‡‡		7.68	6.98	104⅛	+3/16	105⅞	96 3/16
Five to Fifteen Years							
Treas 10pc 2001		8.93	7.15	112	+3/16	114	104 13/32
7pc 2001 ‡‡		7.05	7.15	99¼	+3/16	101 3/16	90 13/32
9¾pc 2002		8.69	7.35	112¼	+3/16	114⅝	103 11/16
8pc 2003‡‡		7.74	7.40	103 5/16	+3/16	105 23/32	94⅝
10pc 2003		8.73	7.45	114½	+3/16	117 3/16	105⅞
Treas 11½pc 2001–4		9.76	7.25	117⅞	+¼	119 13/32	110 13/32
Funding 3½pc 1999–4		4.28	6.37	81¼	+⅛	83 11/16	70½
Conversion 9½pc 2004		8.51	7.54	111 11/16	+7/32	114 5/16	103 5/16
Treas 6¾pc 2004‡‡		7.15	7.53	94 13/32	+3/16	96 13/32	86 7/16
Conv 9½pc 2005		8.50	7.60	111 13/32	+3/16	114 13/32	103⅝
Treas 12½pc 2003–5		9.73	7.58	128 13/32	+3/16	131⅞	119 13/32
Treas 8½pc 2005‡‡		8.04	7.66	105 23/32	+13/32	108 13/32	97⅝
7½pc 2006‡‡		7.60	7.68	98 21/32	+13/32	101 13/32	94 13/32
7¾pc 2006‡‡		7.74	7.73	100¼	+15/32	103¼	92⅛
8pc 2002–6‡‡		7.89	7.81	101 13/32	+11/32	104 15/32	93¾
Treas 11¾pc 2003–7		9.58	7.51	122⅝	+⅜	125 3/16	113 15/32
Treas 8½pc 2007 ‡‡		8.06	7.77	105 17/32	+15/32	108 15/32	97 15/32
13½pc 2004–8		9.96	7.59	135 9/16	+15/32	138 13/32	126 9/16
Treas 9pc 2008 ‡‡		8.23	7.82	109 5/16	+7/16	112 13/32	101¾
Treas 8pc 2009		7.92	7.87	101 1/16	+⅛	104½	94 3/16
Treas 6 1/4pc 2010		7.33	7.96	85 5/16	+⅜	88 3/16	79 3/16
Over Fifteen Years							
Conv 9pc Ln 2011 ‡‡		8.25	7.97	109 1/16	+½	112 13/32	101 15/32
Treas 9pc 2012‡‡		8.23	7.97	109⅜	+15/32	113 3/16	102 3/16
Treas 5½pc 2008–12‡‡		6.85	7.70	80¼	+⅜	82¾	72¾
Treas 8pc 2013‡‡		7.89	7.98	100 5/16	+7/16	103 13/32	93 13/32
7¾pc 2012–15‡‡		7.91	7.98	97 13/32	+13/32	101 13/32	92
8pc 2015		7.99	7.98	100 3/16	+7/16	104 3/16	93 13/32
Treas 8¾pc 2017‡‡		8.16	8.04	107 3/16	+15/32	111⅝	100 13/32
Exch 12pc 2013–17		8.79	8.09	136 5/16	+7/16	141 13/32	127 5/16
Undated							
Consols 4pc		8.25	–	48½	-3/16	50 13/32	45⅛
War Loan 3½pc‡‡		8.05	–	43 15/32	+3/16	45 3/16	40 13/32
Conv 3½pc '61 Aft		5.80	–	60⅜	—	62¼	57 5/16
Treas 3pc '66 Aft		8.12	–	36 13/32	—	38 1/16	34⅛
Consols 2½pc		8.00	–	31¼	+3/16	32 13/32	28⅞
Treas. 2½pc		8.15	–	30 13/32	—	32 3/16	28⅜

	Notes	Yield (1)	Yield (2)	Price £	+ or –	52 week High	52 week Low
Index-Linked	(b)						
2pc '96	(67.9)	–	2.05	216 3/16	+3/16	216 3/16	203⅝
4⅝pc '98‡‡	(135.6)	1.39	2.61	112 15/32	+1/16	113 3/16	107⅛
2½pc '01	(78.3)	2.97	3.46	178 3/16	+1/16	180 3/16	166 13/32
2½pc '03	(78.8)	3.16	3.54	174 3/16	+3/16	176 3/16	162 13/32
4⅜pc '04‡‡	(135.6)	3.19	3.54	114 13/32	—	116 13/32	108 13/32
2pc '06	(69.5)	3.29	3.56	182⅝	+3/16	185 13/32	168 13/32
2½pc '09	(78.8)	3.39	3.61	164 13/32	+3/16	167⅜	152 13/32
2½pc '11	(74.6)	3.44	3.64	170 3/16	+7/32	173 3/16	157⅜
2½pc '13	(89.2)	3.49	3.67	139 13/32	+3/16	143	129⅜
2½pc '16	(81.6)	3.53	3.69	149	+3/16	152¼	137 13/32
2½pc '20	(83.0)	3.57	3.72	142¼	+7/32	146 3/16	131 13/32
2½pc '24‡‡	(97.7)	3.57	3.70	118 13/32	+7/32	122 3/16	109⅜
4⅛pc '30‡‡	(135.1)	3.59	3.72	117 3/16	+¼	120 13/32	108⅜

Prospective real redemption rate on projected inflation of (1) 10% and (2) 5%. (b) Figures in parentheses show RPI base for indexing (ie 8 months prior to issue) and have been adjusted to reflect rebasing of RPI to 100 in February 1987. Conversion factor 3.945. RPI for May 1995: 149.7 and for December 1995: 150.7.

Other Fixed Interest

	Notes	Yield Int	Yield Red	Price £	+ or –	52 week High	52 week Low
Asian Dev 10¼pc 2009		8.80	8.18	116 3/16	-½	120	108 13/32
B'ham 11½pc 2012		9.24	8.70	124½	—	128	116½
Ireland Cap 8½pc '10		8.04	–	105¾	—	106	97
9pc Cap 1998		8.65	–	104	—	104¼	100½
13pc '97-2		11.72	–	110⅞	—	111⅞	107
Hydro Quebec 15pc 2011		10.15	9.13	147 13/32	+1/16	154 13/32	138 13/32
Leeds 13⅜pc 2006		10.13	–	133¾	—	138½	126½
Liverpool 3½pc Irred.		8.75	–	40	-½	41	33
LCC 3pc '20 Aft		8.82	–	34	-½	35	27¾
Manchester 11½pc 2007		9.47	8.57	121½	+¼	124½	113½
Met. Wtr. 3pc 'B'		4.03	7.65	74½	—	76	69½
N'wide Anglia 3⅞pc 2021		3.03	4.52	138¼	-¼	143½	130½
4⅛pc IL 2024		–	4.48	133¼	-¼	140⅝	125½
Utd Mex States 16½pc 2008		13.36	–	123½	—	136½	113½

● 'Tap' stock. ‡‡ Tax-free to non-residents on application. E Auction basis. xd Ex dividend. Closing mid-prices are shown in pounds per £100 nominal of stock.

CURRENCIES AND MONEY

MARKETS REPORT

EMU fallout boosts sterling to four month high

By Philip Gawith

Sterling rallied to a four month high against the D-Mark yesterday despite evidence of general weakness in the UK manufacturing sector which could herald a further fall in interest rates.

The pound's surprising simultaneous rise against both the D-Mark and dollar appeared to reflect disenchantment with the prospects for other leading currencies rather than any particularly positive view of sterling. It finished in London at DM2.2671, from DM2.252, and at $1.5404, from $1.5327.

The dollar had a steadier day after the shake-out on Monday, finishing firmer against both the D-Mark and the yen. It closed at DM1.4718, from DM1.4693, and at Y105.57, from Y105.12.

Sentiment was buoyed by the expectation that there would be healthy Japanese participation in the quarterly US Treasury refunding auction which started yesterday.

The release today of the November trade data could also help the dollar, because these should remind the market of the steady improvement in the US's trade performance, evident in recent months.

European currencies were fairly stable against the D-Mark, with the exception of the Swedish krona which continued its recent fall from grace. It closed at its lowest level in over three months at SKr4.768 against the D-Mark, from SKr4.729.

■ With sterling so long dogged by "political uncertainty", analysts have a hard time saying the UK currency is being seen as a political safe haven. But it is certainly the beneficiary at the moment of the government's ambivalent stance towards Europe.

Mr Tony Norfield, UK treasury economist at ABN AMRO in London, said that there was less policy panic in the UK than in many other European countries which had placed themselves within the straitjacket imposed by the Maastricht convergence criteria.

He said sterling's strength could also be explained by the fact that there had not been any EMU premium to be unwound, and the perception that it would not be "besmirched" by participation in the European single currency, which the UK is not committed to joining.

Mr Norfield said markets were rife with exaggerated fears about what could happen in the future. "The market is still extremely nervous, that 1996 might be the equivalent of the beginning of 1994 – where the initial trends blew up in your face after the first few weeks."

Sterling's rally came despite the weak manufacturing data, which encouraged speculation that a further cut in interest rates may be on the agenda at the monthly monetary meeting today between the governor of the Bank of England and the Chancellor of the Exchequer.

The June short sterling contract finished seven basis points higher at 94.15.

■ The main moves in currency markets at present are being driven by the combination of concerns about the European single currency project, and growth prospects in the US and Europe.

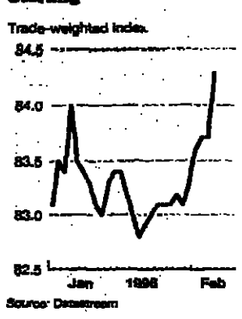
Mr Joe Prendergast, currency strategist at Merrill Lynch in London, said that the dollar historically tracked shifts in interest rate expectations, rather than actual moves in rates. He highlighted the "very bearish move in German interest rate expectations following the deep easing of the past few weeks."

The spread between the June 96 and June 97 euromark contracts has widened from 50 basis points in mid-January, to around 110 basis points now. This has come from a fall in the longer dated contract, with the June 96 contract broadly steady.

Mr Prendergast said this reversal of expectations was likely to keep the dollar's tone damp in the short term.

■ The release today of the latest gold and foreign exchange reserve figures in South Africa will be closely watched. The country has recently enjoyed large capital inflows, and evidence that this trend continues is sure to heighten speculation of an early relaxation of exchange control. Mr Chris Stals, governor of the Reserve Bank, has recently hinted that the present climate favours a relaxation of control measures.

The rand finished at R3.644 against the dollar, almost exactly the level at which it stood when the currency was unified last March.



Source: Datastream

■ **Pound in New York**

Feb 6	---Latest---	-- Prev. close --
£ spot	1.5400	1.5400
1 mth	1.5389	1.5389
3 mth	1.5366	1.5366
1 yr	1.5248	1.5242

■ **OTHER CURRENCIES**

Feb 6	£	$
Czech Kp	41.6197 - 41.6486	27.0240 - 27.0340
Hungary	217.247 - 217.394	141.060 - 141.110
Iran	4621.50 - 4620.30	3000.00 - 3000.00
Kuwait	0.4606 - 0.4609	0.2990 - 0.2992
Poland	3.9078 - 3.9062	2.5335 - 2.5355
Russia	7280.87 - 7283.14	4726.00 - 4729.00
U.A.E.	5.6563 - 5.6586	3.6727 - 3.6730

POUND SPOT FORWARD AGAINST THE POUND

Feb 6		Closing mid-point	Change on day	Bid/offer spread	Day's Mid high	Day's Mid low	One month Rate	One month %PA	Three months Rate	Three months %PA	One year Rate	One year %PA	Bank of Eng. Index
Europe													
Austria	(Sch)	15.9428	+0.1069	365 - 491	15.9491	15.8571	15.8993	3.3	15.8553	2.2	-	-	106.2
Belgium	(BFr)	46.6110	+0.2928	726 - 494	46.6494	46.2530	46.501	2.8	46.276	2.9	45.376	2.6	108.4
Denmark	(DKr)	8.7731	+0.0578	693 - 768	8.7768	8.7242	8.7804	1.7	8.7349	1.7	8.6349	1.6	109.5
Finland	(FM)	6.9794	+0.0492	725 - 863	7.0060	6.9240	6.975	0.8	6.9669	0.7	-	-	85.3
France	(FFr)	7.7904	+0.0419	877 - 931	7.7963	7.7498	7.779	1.8	7.758	1.7	7.6736	1.5	109.4
Germany	(DM)	2.2671	+0.0151	663 - 679	2.2686	2.2538	2.2622	2.6	2.2512	2.8	2.2077	2.6	110.8
Greece	(Dr)	374.813	+1.677	445 - 182	375.912	373.413	-	-	-	-	-	-	65.8
Ireland	(I£)	0.9692	+0.0002	684 - 700	0.9712	0.9675	0.9682	1.2	0.9668	1.1	0.9611	0.8	98.3
Italy	(L)	2422.97	+18.15	181 - 413	2427.55	2408.76	2429.87	-3.4	2443.87	-3.5	2495.97	-3.0	73.3
Luxembourg	(LFr)	46.6110	+0.2928	726 - 494	46.6494	46.2530	46.501	2.8	46.276	2.9	45.376	2.6	108.4
Netherlands	(Fl)	2.5390	+0.0161	378 - 401	2.5401	2.5250	2.5329	2.9	2.5194	3.1	2.4682	2.8	108.5
Norway	(NKr)	9.9038	+0.0622	964 - 111	9.9183	9.8542	9.8971	0.8	9.883	0.8	9.8237	0.8	99.2
Portugal	(Es)	235.419	+1.491	312 - 527	235.557	234.302	235.844	-2.2	236.749	-2.3	-	-	95.4
Spain	(Pta)	191.073	+0.673	003 - 142	191.260	190.227	191.518	-2.8	192.338	-2.6	195.563	-2.3	82.0
Sweden	(SKr)	10.8125	+0.1654	030 - 219	10.8219	10.6399	10.8143	-0.2	10.8176	-0.2	10.8282	-0.1	83.9
Switzerland	(SFr)	1.8508	+0.0108	497 - 518	1.8518	1.8381	1.844	4.4	1.8311	4.3	1.7804	3.8	113.6
UK	(£)	-	-	-	-	-	-	-	-	-	-	-	84.3
Ecu	–	1.2349	+0.0071	344 - 354	1.2379	1.2304	1.2335	1.4	1.2303	1.5	1.2174	1.4	-
SDR	–	1.045500	-	-	-	-	-	-	-	-	-	-	-
Americas													
Argentina	(Peso)	1.5401	+0.0076	398 - 404	1.5416	1.5350	-	-	-	-	-	-	-
Brazil	(R$)	1.5087	+0.0075	062 - 072	1.5079	1.5022	-	-	-	-	-	-	-
Canada	(C$)	2.1176	+0.0075	169 - 183	2.1217	2.1121	2.116	0.9	2.1129	0.9	2.1014	0.8	83.6
Mexico	(New Peso)	11.4987	+0.149	737 - 237	11.5413	11.4083	-	-	-	-	-	-	-
USA	($)	1.5404	+0.0077	401 - 406	1.5418	1.5352	1.5393	0.9	1.5371	0.9	1.5248	1.0	95.7
Pacific/Middle East/Africa													
Australia	(A$)	2.0409	+0.0128	399 - 419	2.0470	2.0320	2.0428	-1.1	2.0469	-1.2	2.0657	-1.2	88.1
Hong Kong	(HK$)	11.9082	+0.0599	065 - 119	11.9189	11.8697	11.9013	0.8	11.8879	0.7	11.8365	0.6	-
India	(Rs)	58.0713	-0.0181	848 - 577	58.9670	57.3790	-	-	-	-	-	-	-
Israel	(Shk)	4.8205	+0.0254	160 - 250	4.8221	4.8102	-	-	-	-	-	-	-
Japan	(Y)	162.615	+1.497	527 - 703	162.590	161.520	161.865	5.5	160.35	5.6	154.215	5.2	137.7
Malaysia	(M$)	3.9179	+0.0156	165 - 193	3.9196	3.9063	-	-	-	-	-	-	-
New Zealand	(NZ$)	2.2778	+0.0147	762 - 793	2.2782	2.2707	2.2814	-1.9	2.2889	-1.9	2.3184	-1.8	106.0
Philippines	(Peso)	40.2694	+0.1586	397 - 990	40.1578	40.2842	-	-	-	-	-	-	-
Saudi Arabia	(SR)	5.7771	+0.0287	760 - 782	5.7824	5.7579	-	-	-	-	-	-	-
Singapore	(S$)	2.1788	+0.0112	777 - 799	2.1804	2.1715	-	-	-	-	-	-	-
South Africa	(R)	5.6135	+0.0284	114 - 155	5.6160	5.5835	-	-	-	-	-	-	-
South Korea	(Won)	1197.70	+5.18	743 - 797	1198.75	1193.77	-	-	-	-	-	-	-
Taiwan	(T$)	42.3242	+0.2217	142 - 341	42.3610	42.1858	-	-	-	-	-	-	-
Thailand	(Bt)	38.8862	+0.1549	721 - 002	38.9000	38.7750	-	-	-	-	-	-	-

† Rates for Feb 5 Bid/offer spreads in the Pound Spot table show only the last three decimal places. Forward rates are not directly quoted to the market but are implied by current interest rates. Sterling index calculated by the Bank of England. Base average 1990 = 100. Index rebased 1/2/95. Bid, Offer and Mid-rates in both this and the Dollar Spot tables derived from THE WM/REUTERS CLOSING SPOT RATES. Some values are rounded by the F.T.

DOLLAR SPOT FORWARD AGAINST THE DOLLAR

Feb 6		Closing mid-point	Change on day	Bid/offer spread	Day's mid high	Day's mid low	One month Rate	One month %PA	Three months Rate	Three months %PA	One year Rate	One year %PA	J P Morgan index
Europe													
Austria	(Sch)	10.3501	+0.0181	477 - 525	10.3525	10.3135	10.3341	1.9	10.3001	1.9	10.1801	1.6	106.2
Belgium	(BFr)	30.2600	+0.04	400 - 800	30.2800	30.1050	30.21	2.0	30.11	2.0	29.755	1.7	108.1
Denmark	(DKr)	5.6955	+0.0092	940 - 970	5.6970	5.6718	5.6913	0.9	5.683	0.9	5.703	-0.1	108.7
Finland	(FM)	4.5311	+0.0095	273 - 348	4.5465	4.5035	4.5266	1.2	4.5181	1.1	4.5016	0.7	84.5
France	(FFr)	5.0576	+0.0021	560 - 585	5.0595	5.0365	5.0538	0.9	5.0476	0.8	5.0526	0.5	108.9
Germany	(DM)	1.4716	+0.0025	715 - 721	1.4722	1.4655	1.4696	1.8	1.4647	1.9	1.4476	1.6	110.1
Greece	(Dr)	243.330	-0.12	130 - 530	243.950	242.700	244.855	-7.5	247.355	-7.6	262.63	-7.9	65.2
Ireland	(I£)	1.5893	+0.0075	883 - 903	1.5910	1.5808	1.5857	-0.3	1.5901	-0.2	1.5832	0.4	-
Italy	(L)	1573.00	+3.99	250 - 350	1578.25	1566.49	1578.65	-4.3	1590.1	-4.3	1637.5	-4.1	72.9
Luxembourg	(LFr)	30.2600	+0.04	400 - 800	30.2800	30.1050	30.208	2.1	30.12	1.9	29.815	1.5	108.1
Netherlands	(Fl)	1.6483	+0.0022	478 - 488	1.6489	1.6422	1.6453	2.2	1.6388	2.3	1.6166	1.9	108.0
Norway	(NKr)	6.4296	+0.0085	258 - 333	6.4505	6.4080	6.4273	0.4	6.4191	0.7	6.4021	0.4	98.2
Portugal	(Es)	152.835	+0.21	790 - 880	152.900	152.380	153.21	-2.9	153.98	-3.0	157.685	-3.1	95.4
Spain	(Pta)	124.045	-0.16	020 - 070	124.220	123.850	124.44	-3.8	125.175	-3.6	128.665	-3.7	81.6
Sweden	(SKr)	7.0185	+0.0728	145 - 245	7.0245	6.9213	7.0356	-2.9	7.066	-2.6	7.2035	-2.6	84.0
Switzerland	(SFr)	1.2015	+0.001	010 - 020	1.2020	1.1950	1.198	3.5	1.1911	3.4	1.1655	3.0	113.2
UK	(£)	1.5404	+0.0077	401 - 406	1.5418	1.5352	1.5393	0.9	1.5371	0.9	1.5248	1.0	83.3
Ecu	–	1.2474	-0.001	470 - 477	1.2500	1.2454	1.2477	-0.3	1.2481	-0.2	1.2487	-0.1	-
SDR	–	0.68340	-	-	-	-	-	-	-	-	-	-	-
Americas													
Argentina	(Peso)	0.9999	-	998 - 999	1.0000	0.9998	-	-	-	-	-	-	-
Brazil	(R$)	0.9782	-	780 - 783	0.9783	0.9780	-	-	-	-	-	-	-
Canada	(C$)	1.3748	-0.002	745 - 750	1.3795	1.3743	1.375	-0.1	1.3751	-0.1	1.3801	-0.4	82.5
Mexico	(New Peso)	7.4850	+0.06	500 - 800	7.4800	7.4500	7.4672	-0.4	7.4704	-0.3	7.4753	-0.1	-
USA	($)	-	-	-	-	-	-	-	-	-	-	-	96.5
Pacific/Middle East/Africa													
Australia	(A$)	1.3249	+0.0018	245 - 254	1.3254	1.3245	1.3269	-1.8	1.3304	-1.7	1.3491	-1.8	89.2
Hong Kong	(HK$)	7.7315	+0.0005	310 - 320	7.7320	7.7310	7.7322	-0.1	7.734	-0.1	7.761	-0.4	-
India	(Rs)	37.7000	-0.2	500 - 500	38.3500	37.3000	37.85	-4.8	38.155	-4.8	39.625	-5.1	-
Israel	(Shk)	3.1295	+0.001	271 - 319	3.1365	3.1263	-	-	-	-	-	-	-
Japan	(Y)	105.570	+0.45	530 - 610	105.610	105.000	105.155	4.7	104.325	4.7	101.125	4.2	138.6
Malaysia	(M$)	2.5435	-0.0025	430 - 440	2.5465	2.5418	2.5444	-0.4	2.5505	-1.1	2.574	-1.2	-
New Zealand	(NZ$)	1.4785	+0.0021	780 - 795	1.4795	1.4778	1.4817	-2.5	1.4875	-2.4	1.5121	-2.3	-
Philippines	(Peso)	26.1430	-0.027	280 - 580	26.1580	26.1280	-	-	-	-	-	-	-
Saudi Arabia	(SR)	3.7505	-	504 - 506	3.7506	3.7504	3.751	-0.1	3.7517	-0.1	3.755	-0.1	-
Singapore	(S$)	1.4145	+0.0003	140 - 150	1.4150	1.4130	1.411	3.0	1.405	2.7	1.3796	2.5	-
South Africa	(R)	3.6443	+0.0008	435 - 450	3.6450	3.6418	3.673	-9.5	3.7245	-8.8	3.9478	-8.3	-
South Korea	(Won)	777.550	-0.5	500 - 600	778.300	777.500	780.55	-4.6	784.05	-3.3	802.55	-3.2	-
Taiwan	(T$)	27.4770	+0.0075	750 - 790	27.4790	27.4500	27.497	-0.9	27.537	-0.9	-	-	-
Thailand	(Bt)	25.2450	-0.025	400 - 500	25.2690	25.2400	25.3438	-4.7	25.5475	-4.8	26.43	-4.7	-

† SDR rate per $ for Feb 5. Bid/offer spreads in the Dollar Spot table show only the last three decimal places. Forward rates are not directly quoted to the market but are implied by current interest rates. UK, Ireland & ECU are quoted in US currency. J P. Morgan nominal indices Feb 5: Base average 1990=100

WORLD INTEREST RATES

MONEY RATES

February 6	Over night	One month	Three mths	Six mths	One year	Lomb. inter.	Dis. rate	Repo rate
Belgium	3⅜	3⅜	3⅜	3⅜	3½	7.00	3.00	-
week ago	3⅜	3⅜	3⅜	3⅜	3⅜	7.00	3.00	-
France	4⅛	4⅜	4⅜	4⅜	4½	4.05	-	5.60
week ago	4⅜	4⅜	4½	4½	4½	4.20	-	5.60
Germany	3½	3⅜	3¼	3¼	3¼	5.00	3.00	3.30
week ago	3⅜	3⅜	3⅜	3⅜	3⅜	5.00	3.00	3.35
Ireland	5	5	5¼	5¼	5¼	-	-	6.25
week ago	5⅛	5	5⅛	5¼	5½	-	-	6.25
Italy	9⅞	9¾	9⅝	9½	9⅜	-	9.00	9.72
week ago	10	9¾	9½	9½	9½	-	9.00	9.96
Netherlands	3⅛	3⅛	3⅛	3	3⅛	-	3.00	3.30
week ago	3⅛	3⅛	3⅛	3⅛	3⅛	-	3.00	3.30
Switzerland	1⅜	1⅜	1⅜	1⅜	1½	5.00	1.50	-
week ago	1⅜	1⅜	1⅜	1⅜	1⅜	5.00	1.50	-
US	5⅛	5¼	5⅛	5⅛	5	-	5.00	-
week ago	5½	5¼	5¼	5⅛	5⅛	-	5.25	-
Japan	⅜	⅜	⅜	⅜	⅜	-	0.50	-
week ago	⅜	⅜	½	⅜	⅜	-	0.50	-
■ **$ LIBOR FT London**								
Interbank Fixing	-	5⅜	5⅜	5¼	5⅛	-	-	-
week ago	-	5⅜	5⅜	5⅜	5⅜	-	-	-
US Dollar CDs	-	5.10	5.03	4.95	4.84	-	-	-
week ago	-	5.10	5.19	5.12	4.99	-	-	-
ECU Linked Ds	-	4⅜	4⅜	4⅜	4⅜	-	-	-
week ago	-	4⅜	4⅜	4⅜	4⅜	-	-	-
SDR Linked Ds	-	3⅜	3⅜	3⅜	3⅜	-	-	-
week ago	-	3⅜	3⅜	3⅜	3⅜	-	-	-

$ LIBOR interbank fixing rates are offered rates for $10m quoted to the market by four reference banks at 11am each working day. The banks are: Bankers Trust, Bank of Tokyo, Barclays and National Westminster.
Mid rates are shown for the domestic Money Rates, US$ CDs, ECU & SDR Linked Deposits (Ds).

EURO CURRENCY INTEREST RATES

Feb 6	Short term	7 days notice	One month	Three months	Six months	One year
Belgian Franc	3 5/16 - 3 3/16	3 5/16 - 3 3/16	3⅜ - 3¼	3⅜ - 3¼	3⅜ - 3¼	3⅜ - 3¼
Danish Krone	4⅛ - 3⅞	4½ - 4¼	4 13/32 - 4¼	4⅜ - 4 3/16	4½ - 4 3/16	4½ - 4¼
D-Mark	3 5/16 - 3 3/16	3 11/32 - 3 7/32	3 11/32 - 3 7/32	3 11/32 - 3 7/32	3 11/32 - 3 3/16	3 11/32 - 3 3/16
Dutch Guilder	3 3/16 - 3 1/16	3 3/16 - 3 1/16	3 3/16 - 3 1/16	3 1/16 - 2 15/16	3 1/32 - 2 29/32	3¼ - 3⅛
French Franc	4⅞ - 4½	4 21/32 - 4 17/32	4 17/32 - 4¼	4 13/32 - 4 5/16	4 13/32 - 4 5/16	4 13/32 - 4 13/32
Portuguese Esc.	7 13/16 - 7 11/16	8 - 7⅞	8⅛ - 8	8⅛ - 8	8⅛ - 8	8⅛ - 8
Spanish Peseta	9¼ - 9⅛	9 5/16 - 9 3/16	9 - 8⅞	8¾ - 8⅝	8 9/16 - 8 7/16	8 15/32 - 8 11/32
Sterling	6⅜ - 6¼	6 5/16 - 6¼	6 5/16 - 6¼	6 7/32 - 6 3/32	6⅛ - 6 1/16	6⅛ - 6 1/16
Swiss Franc	1⅝ - 1½	1¾ - 1⅝	1 17/32 - 1 13/32	1⅝ - 1½	1⅝ - 1½	2 1/16 - 1 15/16
Can. Dollar	5¼ - 5 1/16	5¼ - 5 1/16	5¼ - 5⅛	5¼ - 5⅛	5¼ - 5⅛	5¼ - 5⅛
US Dollar	5 5/16 - 5 3/16	5 5/16 - 5 3/16	5 5/16 - 5 3/16	5¼ - 5⅛	5⅛ - 5	5 - 4 13/16
Italian Lira	9 13/16 - 9 11/16	10 - 9¾	9 19/32 - 9 13/32	9 19/32 - 9 13/32	9 15/32 - 9 11/32	9¼ - 9⅛
Yen	15/32 - 11/32	15/32 - 11/32	15/32 - 11/32	15/32 - 11/32	15/32 - 11/32	15/32 - 11/32
Asian $Sing	1 7/16 - 1 5/16	1⅛ - 1	2 5/16 - 2 3/16	2 5/16 - 2 3/16	2 7/16 - 2 5/16	2 13/32 - 2 11/32

Short term rates are call for the US Dollar and Yen, others: two days' notice.

■ **THREE MONTH PIBOR FUTURES** (MATIF) Paris Interbank offered rate (FFr5m)

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Mar	95.46	95.46	+0.03	95.50	95.47	25,997	50,866
Jun	95.66	95.66	+0.02	95.70	95.66	9,168	53,789
Sep	95.65	95.65	+0.02	95.70	95.66	5,105	44,033

■ **THREE MONTH EUROMARK FUTURES** (LIFFE)* DM1m points of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Mar	96.78	96.79	+0.01	96.79	96.76	20969	173133
Jun	96.81	96.83	+0.03	96.84	96.78	37135	172281
Sep	96.61	96.65	+0.03	96.69	96.58	40882	166351
Dec	96.35	96.37	+0.03	96.40	96.30	46797	143877

■ **THREE MONTH EUROLIRA FUTURES** (LIFFE)* L1000m points of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Mar	90.54	90.56	+0.02	90.57	90.45	5608	43753
Jun	91.14	91.19	+0.05	91.22	91.10	4451	30712
Sep	91.37	91.43	+0.04	91.45	91.37	1762	17695
Dec	91.41	91.47	+0.04	91.47	91.41	1179	10438

■ **THREE MONTH EURO SWISS FRANC FUTURES** (LIFFE) SFr1m points of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Mar	98.06	98.11	+0.09	98.13	98.06	5789	23825
Jun	97.86	97.94	+0.10	97.99	97.86	6041	22345
Sep	97.68	97.67	+0.10	97.73	97.63	4187	12148
Dec	97.33	97.39	+0.12	97.41	97.33	1832	6021

■ **THREE MONTH ECU FUTURES** (LIFFE) Ecu1m points of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Mar	95.43	95.47	+0.02	95.48	95.43	1077	8429
Jun	95.53	95.59	+0.04	95.59	95.53	762	4901
Sep	95.53	95.56	+0.05	95.56	95.52	320	3060
Dec	95.30	95.37	+0.04	95.38	95.30	73	3053

* LIFFE futures also traded on APT

■ **EUROLIRA OPTIONS** (LIFFE) L1000m points of 100%

Strike Price	CALLS Mar	CALLS Jun	CALLS Sep	PUTS Mar	PUTS Jun	PUTS Sep
9050	0.22	0.85	1.22	0.16	0.16	0.29
9075	0.12	0.68	1.03	0.31	0.22	0.35
9100	0.05	0.50	0.85	0.49	0.31	0.42

Est. vol. total, Calls 1184 Puts 0. Previous day's open int., Calls 19744 Puts 16901

CROSS RATES AND DERIVATIVES

EXCHANGE CROSS RATES

		BFr	DKr	FFr	DM	I£	L	Fl	NKr	Es	Pta	SKr	SFr	£	C$	$	Y	Ecu
Belgium	(BFr)	100	18.82	16.71	4.864	2.079	5198	5.447	21.25	505.0	410.0	23.19	3.971	2.145	4.581	3.304	348.9	2.650
Denmark	(DKr)	53.13	10	8.880	2.584	1.105	2762	2.894	11.29	268.3	217.8	12.32	2.110	1.140	2.407	1.755	185.3	1.408
France	(FFr)	59.83	11.26	10	2.910	1.244	3110	3.259	12.71	302.2	245.3	13.88	2.376	1.284	2.711	1.977	208.7	1.585
Germany	(DM)	20.56	3.870	3.436	1	0.427	1069	1.120	4.369	103.8	84.30	4.768	0.816	0.441	0.932	0.679	71.72	0.545
Ireland	(I£)	48.10	9.054	8.039	2.340	1	2501	2.620	10.22	242.9	197.2	11.16	1.910	1.032	2.180	1.589	167.8	1.275
Italy	(L)	1.924	0.362	0.322	0.094	0.040	100.	0.105	0.409	9.715	7.887	0.446	0.076	0.041	0.087	0.064	6.711	0.051
Netherlands	(Fl)	18.36	3.455	3.068	0.893	0.382	954.3	1	3.901	92.71	75.27	4.258	0.729	0.394	0.832	0.607	64.04	0.486
Norway	(NKr)	47.06	8.858	7.866	2.289	0.978	2446	2.564	10	237.7	193.0	10.91	1.869	1.010	2.132	1.555	164.2	1.247
Portugal	(Es)	19.80	3.727	3.308	0.963	0.412	1029	1.079	4.207	100.	81.18	4.592	0.786	0.425	0.897	0.654	69.07	0.525
Spain	(Pta)	24.39	4.591	4.076	1.186	0.507	1268	1.329	5.183	123.2	100.	5.657	0.969	0.523	1.105	0.806	85.09	0.646
Sweden	(SKr)	43.12	8.116	7.206	2.097	0.896	2241	2.349	9.162	217.8	176.8	10	1.712	0.925	1.954	1.425	150.4	1.142
Switzerland	(SFr)	25.18	4.740	4.208	1.225	0.524	1309	1.372	5.351	127.2	103.2	5.840	1	0.540	1.141	0.832	87.84	0.667
UK	(£)	46.61	8.773	7.790	2.267	0.969	2423	2.539	9.904	235.4	191.1	10.81	1.851	1	2.112	1.540	162.6	1.235
Canada	(C$)	22.07	4.154	3.688	1.073	0.459	1147	1.202	4.689	111.5	90.48	5.118	0.876	0.473	1	0.729	76.99	0.585
US	($)	30.27	5.697	5.058	1.472	0.629	1573	1.649	6.431	152.9	124.1	7.019	1.202	0.649	1.371	1	105.6	0.802
Japan	(Y)	28.67	5.395	4.791	1.394	0.596	1490	1.562	6.091	144.8	117.5	6.648	1.138	0.615	1.299	0.947	100.	0.760
Ecu		37.74	7.104	6.308	1.836	0.785	1962	2.056	8.019	190.6	154.7	8.753	1.499	0.810	1.710	1.247	131.7	1

Danish Kroner, French Franc, Norwegian Kroner, and Swedish Kronor per 10; Belgian Franc, Yen, Escudo, Lira and Peseta per 100.

■ **D-MARK FUTURES** (IMM) DM 125,000 per DM

	Open	Latest	Change	High	Low	Est. vol	Open int.
Mar	0.6831	0.6810	-0.0021	0.6827	0.6810	57,775	80,075
Jun	0.6855	0.6853	-0.0010	0.6858	0.6844	249	3,597
Sep	-	-	-	-	-	23	1,403

■ **SWISS FRANC FUTURES** (IMM) SFr 125,000 per SFr

	Open	Latest	Change	High	Low	Est. vol	Open int.
Mar	0.8393	0.8357	-0.0036	0.8383	0.8357	22,677	42,447
Jun	0.8444	0.8428	-0.0030	0.8450	0.8428	352	1,490
Sep	-	-	-	-	-	17	179

■ **JAPANESE YEN FUTURES** (IMM) Yen 12.5 per Yen 100

	Open	Latest	Change	High	Low	Est. vol	Open int.
Mar	0.9573	0.9559	-0.0016	0.9659	0.9525	38,850	73,059
Jun	0.9658	0.9665	-0.0021	0.9657	0.9637	909	5,092
Sep	-	0.9790	-	-	-	21	738

■ **STERLING FUTURES** (IMM) £62,500 per £

	Open	Latest	Change	High	Low	Est. vol	Open int.
Mar	1.5390	1.5396	-0.0006	1.5402	1.5352	41,737	47,356
Jun	1.5350	1.5370	-	1.5370	1.5330	150	354
Sep	-	-	-	-	-	4	5

UK INTEREST RATES

LONDON MONEY RATES

Feb 6	Over-night	7 days notice	One month	Three months	Six months	One year
Interbank Sterling	7 - 6¼	6⅜ - 6¼	6 5/16 - 6 3/16	6 5/16 - 6 3/16	6 3/16 - 6 1/16	6⅛ - 6
Sterling CDs	-	-	6 5/16 - 6¼	6 3/16 - 6⅛	6 1/16 - 6	6 1/16 - 6
Treasury Bills	-	-	6⅛ - 6 1/16	6 1/16 - 6	-	-
Bank Bills	-	-	6⅛ - 6 3/32	6 1/16 - 6	5 31/32 - 5 29/32	-
Local authority deps.	6¼ - 6⅛	6¼ - 6⅛	6 5/32 - 6 3/32	6¼ - 6⅛	6⅛ - 6 1/16	6⅛ - 6
Discount Market deps	6½ - 6¼	6 5/16 - 6 3/16	-	-	-	-

UK clearing bank base lending rate 6¼ per cent from January 18, 1996

	Up to 1 month	1-3 month	3-6 months	6-9 months	9-12 months
Certs of Tax dep. (£100,000)	2½	5½	5	5	4½

Certs of Tax dep. under £100,000 is 2½pc. Deposits withdrawn for cash 1½pc.
Ave. tender rate of discount 5.9688pc. ECGD fixed rate Stlg. Export Finance. Make up day Jan 31, 1996. Agreed rate for period Feb 26, 1996 to Mar 25, 1996, Schemes II & III 7.69pc. Reference rate for period Dec 30, 1995 to Jan 31, 1996, Schemes IV & V 6.440pc. Finance House Base Rate 6.5pc from February 1, 1996

■ **THREE MONTH STERLING FUTURES** (LIFFE) £500,000 points of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Mar	93.88	93.92	+0.05	93.93	93.88	8193	83238
Jun	94.08	94.15	+0.07	94.17	94.08	21629	79698
Sep	94.03	94.13	+0.10	94.16	94.03	14267	63180
Dec	93.82	93.91	+0.10	93.92	93.82	7072	46872
Mar	93.54	93.60	+0.08	93.62	93.54	2978	33120

Also traded on APT. All Open interest figs. are for previous day.

■ **SHORT STERLING OPTIONS** (LIFFE) £500,000 points of 100%

Strike Price	CALLS Mar	CALLS Jun	CALLS Sep	PUTS Mar	PUTS Jun	PUTS Sep
9375	0.20	0.45	0.55	0.03	0.08	0.17
9400	0.05	0.27	0.39	0.13	0.12	0.26
9425	0.01	0.14	0.25	0.34	0.24	0.37

Est. vol. total, Calls 3541 Puts 1626. Previous day's open int., Calls 141592 Puts 145565

EMS EUROPEAN CURRENCY UNIT RATES

Feb 6	Ecu cen. rates	Rate against Ecu	Change on day	% +/- from cen. rate	% spread v weakest	Div. ind.
Spain	162.493	159.368	-0.222	-1.92	4.38	13
Netherlands	2.15214	2.11603	+0.00016	-1.68	4.12	12
Belgium	39.3960	38.8516	+0.0015	-1.38	3.81	10
Austria	13.4383	13.2858	-0.0004	-1.13	3.56	8
Germany	1.91007	1.88952	+0.00019	-1.08	3.49	11
Portugal	195.792	196.296	+0.047	0.26	2.11	-2
Denmark	7.28580	7.31111	+0.00237	0.35	2.02	-2
France	6.40608	6.49820	-0.00285	1.44	0.92	-12
Ireland	0.792214	0.811010	-0.000784	2.37	0.00	-16
NON ERM MEMBERS						
Greece	292.867	313.166	+0.11	6.93	-4.26	-
Italy	2106.15	2023.06	+7.08	-3.95	6.58	-
UK	0.786652	0.836702	-0.00132	6.36	-3.75	-

Ecu central rates set by the European Commission. Currencies are in descending relative strength. Percentage changes are for Ecu; a positive change denotes a weak currency. Divergence shows the ratio between two spreads: the percentage difference between the actual market and Ecu central rates for a currency, and the maximum permitted percentage deviation of the currency's market rate from its Ecu central rate.
(17/9/92) Sterling and Italian Lira suspended from ERM. Adjustment calculated by the Financial Times.

■ **PHILADELPHIA SE £/$ OPTIONS** £31,250 (cents per pound)

Strike Price	CALLS Feb	CALLS Mar	CALLS Apr	PUTS Feb	PUTS Mar	PUTS Apr
1.500	4.12	4.28	4.62	0.02	0.31	0.73
1.510	3.13	3.44	3.87	0.05	0.48	0.98
1.520	2.28	2.68	3.19	0.14	0.72	1.31
1.530	1.44	2.06	2.58	0.32	1.06	1.60
1.540	0.79	1.48	2.09	0.64	1.49	2.07
1.550	0.32	1.04	1.64	1.15	2.05	2.57

Previous day's vol., Calls 10,287 Puts 6,908. Prev. day's open int., Calls 175,459 Puts 211,100

■ **THREE MONTH EURODOLLAR** (IMM) $1m points of 100%

	Open	Latest	Change	High	Low	Est. vol	Open int.
Mar	94.80	94.80	-0.01	94.82	94.80	34,830	410,065
Jun	95.15	95.18	-	95.17	95.14	80,611	444,139
Sep	95.33	95.30	-0.01	95.31	95.29	59,250	314,373

■ **US TREASURY BILL FUTURES** (IMM) $1m per 100%

	Open	Latest	Change	High	Low	Est. vol	Open int.
Mar	95.30	95.30	+0.01	95.30	95.30	572	10,765
Jun	95.15	95.58	-	95.58	95.58	248	7,045
Sep	-	95.70	-0.01	-	-	58	773

All Open interest figs. are for previous day

■ **EUROMARK OPTIONS** (LIFFE) DM1m points of 100%

Strike Price	CALLS Feb	CALLS Mar	CALLS Apr	CALLS Jun	PUTS Feb	PUTS Mar	PUTS Apr	PUTS Jun
9675	0.07	0.10	0.18	0.18	0.03	0.06	0.08	0.10
9700	0	0.02	0.05	0.06	0.21	0.23	0.22	0.23
9725	0	0	0.01	0.02	0.46	0.48	0.43	0.44

Est. vol. total, Calls 6496 Puts 2556. Previous day's open int., Calls 282924 Puts 277741

■ **EURO SWISS FRANC OPTIONS** (LIFFE) SFr 1m points of 100%

Strike Price	CALLS Mar	CALLS Jun	CALLS Sep	PUTS Mar	PUTS Jun	PUTS Sep
9800	0.19	0.20	0.20	0.06	0.26	0.53
9825	0.07	0.09	0.10	0.21	0.40	0.68
9850	0.02	0.04	0.04	0.41	0.60	0.87

Est. vol. total, Calls 0 Puts 0. Previous day's open int., Calls 9035 Puts 4210

BASE LENDING RATES

	%
Adam & Company	6.25
Allied Trust Bank	6.25
AIB Bank	6.25
●Henry Ansbacher	6.25
Bank of Baroda	6.25
Banco Bilbao Vizcaya	6.25
Bank of Cyprus	6.25
Bank of Ireland	6.25
Bank of India	6.25
Bank of Scotland	6.25
Barclays Bank	6.25
Brit Bk of Mid East	6.25
●Brown Shipley & Co Ltd	6.25
Citibank NA	6.25
Clydesdale Bank	6.25
The Co-operative Bank	6.25
Coutts & Co	6.25
Credit Lyonnais	6.25
Cyprus Popular Bank	6.25
Duncan Lawrie	6.25
Exeter Bank Limited	7.25
Financial & Gen Bank	7.00
●Robert Fleming & Co	6.25
Girobank	6.25
●Guinness Mahon	6.25
Habib Bank AG Zurich	6.25
●Hambros Bank	6.25
Heritable & Gen Inv Bk	6.25
●Hill Samuel	6.25
C. Hoare & Co	6.25
Hongkong & Shanghai	6.25
Julian Hodge Bank	6.25
●Leopold Joseph & Sons	6.25
Lloyds Bank	6.25
Meghraj Bank Ltd	6.25
Midland Bank	6.25
* Mount Credit Corp	6.25
NatWestminster	6.25
●Rea Brothers	6.25
Royal Bk of Scotland	6.25
●Singer & Friedlander	6.25
●Smith & Williamson Secs	6.25
TSB	6.25
United Bank of Kuwait	6.25
Unity Trust Bank Plc	6.25
Western Trust	6.25
Whiteaway Laidlaw	6.25
Yorkshire Bank	6.25

● Members of London Investment Banking Association
* In administration

LEGAL NOTICES

COURT OF ROME
BANKRUPTCY SECTION

Bankruptcy no. 52748 of Immobiliare Francesca '81 s.r.l. At 12.30pm on 19.02.1996 the Official Receiver Dott.ssa De Virgiliis is to sell small building in Montalcino (Siena, Italy). Base price Lit. 536,000,000 and Lit. 15,000,000 for the furniture. 25% deposit by 1pm on 16.02.1996. Receiver Tel. +39 774 608677/608765

LONDON SHARE SERVICE

ALCOHOLIC BEVERAGES

BANKS, RETAIL

BANKS, MERCHANT

BUILDING MATS. & MERCHANTS - Cont.

CHEMICALS

DISTRIBUTORS

ELECTRONIC & ELECTRICAL EQPT - Cont.

ENGINEERING

EXTRACTIVE INDUSTRIES - Cont.

FOOD PRODUCERS

HOUSEHOLD GOODS - Cont.

INSURANCE

INVESTMENT TRUSTS - Cont.

BUILDING MATS. & MERCHANTS

BUILDING & CONSTRUCTION

BREWERIES, PUBS & REST

DIVERSIFIED INDUSTRIALS

ELECTRICITY

ELECTRONIC & ELECTRICAL EQPT

ENGINEERING, VEHICLES

EXTRACTIVE INDUSTRIES

GAS DISTRIBUTION

HEALTH CARE

HOUSEHOLD GOODS

INVESTMENT TRUSTS

INV TRUSTS SPLIT CAPITAL

LONDON SHARE SERVICE

INV TRUSTS SPLIT CAPITAL - Cont.

LEISURE & HOTELS - Cont.

OTHER FINANCIAL - Cont.

PROPERTY - Cont.

SUPPORT SERVICES - Cont.

AIM - Cont.

The Alternative Investment Market, designed primarily for small companies, is regulated by the London Stock Exchange but has less demanding rules than the SE Official List.

LIFE ASSURANCE

MEDIA

PAPER , PACKAGING & PRINTING

RETAILERS, FOOD

TELECOMMUNICATIONS

AMERICANS

TEXTILES & APPAREL

RETAILERS, GENERAL

PHARMACEUTICALS

CANADIANS

OTHER INVESTMENT TRUSTS

The following investment trusts are not eligible for inclusion in the FT-SE Actuaries Share Indices.

Approved by the Inland Revenue

Net asset values supplied by NatWest Securities Limited as a guide only. See guide to London Share Service

SOUTH AFRICANS

	Notes	Price	+ or –	52 week high	52 week low	Mkt Cap£m	Yld Gr's	P/E
Anglo Am Ind		£30½	—	£34½	£29	2,036	2.8	14.9
Barlow	♣	[illegible]	[illegible]	[illegible]	[illegible]	1,996	1.5	Φ
Gold Flds Prop R		178	+7	178	135	17.4	6.3	7.8
MK Props		85	—	86	65	3.62	12.8	–
SASOL	♥	583	–11	649	475	3,296	2.5	–
SA Brews		[illegible]	[illegible]	[illegible]	[illegible]	7,234	1.5	32.8
Standard Bank	□	£31½	[illegible]	[illegible]	[illegible]	3,770	1.5	21.6
Tiger Oats		1258	—	1270	725	1,880	1.5	Φ
Tongaat-Hulett	†	1180	–6	1247	835	1,108	1.7	22.3

INVESTMENT COMPANIES

OIL EXPLORATION & PRODUCTION

TOBACCO

TRANSPORT

PHARMACEUTICALS - Cont.

RETAILERS, GENERAL - Cont.

PROPERTY

OIL, INTEGRATED

WATER

SUPPORT SERVICES

OTHER FINANCIAL

AIM

LEISURE & HOTELS

GUIDE TO LONDON SHARE SERVICE

Prices for the London Share Service delivered by FT Extel, a member of the Financial Times Group.

Company classifications are based on those used for the FT-SE Actuaries Share Indices.

Closing mid-prices are shown in pence unless otherwise stated. Highs and lows are based on intra-day mid-prices over a rolling 52 week period.

Where stocks are denominated in currencies other than sterling, this is indicated after the name.

Symbols referring to dividend status appear in the notes column daily as a guide to yields and P/E ratios. Dividends and Dividend covers are published on Monday.

Market capitalisation shown is calculated separately for each line of stock quoted.

Earnings used in calculations are based on IIMR 'Headline Earnings' formula.

Price/earnings ratios are based on latest annual reports and accounts and, where possible, are updated on interim figures.

Yields are based on mid-prices, are gross, adjusted for a dividend tax credit of 20 per cent and allow for value of declared distribution and rights.

Estimated Net Asset Values (NAVs) are shown for Investment Trusts, in pence per share, along with the percentage discounts (Dis) or premiums (Pm –) to the current closing share price. The NAV basis assumes prior charges at par value, convertibles converted and warrants exercised if dilution occurs.

- □ Indicates the most actively traded stocks. This includes UK stocks where transactions and prices are published continuously through the Stock Exchange Automated Quotation system (SEAQ) and non-UK stocks through the SEAQ International system.
- • *Highs and lows marked thus have been adjusted to allow for capital changes*
- † Interim since increased or resumed
- ‡ Interim since reduced, passed or deferred
- Φ Figures or report awaited
- ♥ Rule 2.1(a)(v) Overseas incorporated companies listed on an approved exchange.
- ♣ Free annual/interim report available, see details below
- ✱ USM; not listed on Stock Exchange and company not subjected to same degree of regulation as listed securities.
- ‡‡ Rule 4.2(a) Irish incorporated non-listed companies.
- § Price at time of suspension
- ¶ Indicated dividend yield after pending scrip and/or rights issue.
- ♦ *Merger bid or reorganisation in progress*
- § Forecast dividend yield; p/e based on earnings updated by latest interim statement.
- ♠ Unregulated collective investment scheme.

a Yield based on annualised dividend	ACT guidelines.	1995-96.
b Figures based on prospectus or other *official estimates.*	z Dividend yield includes a special payment	R Forecast annualised yield, p/e based on prospectus or other *official estimates.*
g Assumed dividend yield after rights issue.	F Yield based on *prospectus or other* official estimates for 1994-95.	W Pro forma figures.
h Assumed dividend yield after scrip issue.	G Assumed yield after pending scrip and/or rights issue.	Z Dividend yield to date.
e Rights issue pending	H Yield based on prospectus or other official estimates for 1995.	
q Earnings based on preliminary figures.	K Yield based on prospectus or other official estimates for 1996	
s Dividend yield *excludes a special* payment.	L Estimated annualised yield, p/e based on latest annual earnings.	Abbreviations:
t Indicated dividend yield, p/e ratio based on latest annual earnings.	M Yield based on prospectus or other official estimates for	xd ex dividend;
u Forecast, or estimated annualised dividend yield, p/e based on previous year's earnings		xc ex scrip issue;
v P/e ratios are calculated under new		xr ex rights;
		xa ex all;
		xi ex capital distribution.

This service is available to companies whose shares are regularly traded in the United Kingdom for a fee of £1350 a year for each security shown, subject to the Editor's discretion

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Both Annual Reports and FT Company Focus are available from the above number.

✱ FT Company Focus

Comprehensive 10-14 page report available on this company, containing key FT stories from the last year, latest survey of City profit forecasts and investment recommendations, 5 year financial and share price performance review, balance sheet and profit and loss data, plus recent Stock Exchange announcements for £6.45.

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For readers phoning from outside UK, please dial +44 in place of the first 0.

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● FT Cityline Unit Trust Prices are available over the telephone. Call the FT Cityline Help Desk on (+44 171) 873 4378 for more details.

OFFSHORE AND OVERSEAS

BERMUDA (SIB RECOGNISED)

BERMUDA (REGULATED)(**)

GUERNSEY (SIB RECOGNISED)

GUERNSEY (REGULATED)(**)

IRELAND (SIB RECOGNISED)

IRELAND (REGULATED)(**)

ISLE OF MAN (REGULATED)(**)

JERSEY (SIB RECOGNISED)

JERSEY (REGULATED)(**)

ISLE OF MAN (SIB RECOGNISED)

LUXEMBOURG (SIB RECOGNISED)

LUXEMBOURG (REGULATED)(**)

هكذا من الأصل

FT MANAGED FUNDS SERVICE

Cityline Unit Trust Prices are available over the telephone. Call the FT Cityline Help Desk on (+44 171) 873 4378 for more details.

Selling Price | Buying Price | +or- | Yield Gross

Credit Investment Funds - Contd.

Credit Commercial de France

Daiwa Japan Gear Fund

Daiwa Japan Small Equity Fd (u)

Dilcon Worldwide Investment Fund

The Dragon Fund Sicav

Emerging Markets Brewery Fund SICAV

Europe Value Fund (u)

EuroOptec (u)

Fidelity Intl Inv Mngt (Luxembourg) SA

Fidelity Investment (CI) Ltd

The First Korea Smaller Companies Fund

Fleming Group

Foundbella Mgmt Company SA (Umbrella Fund)

Foreign & Colonial Emerging Markets Ltd

Frankington Russian Investment Fund

Gartmore Luxembourg S.A.

Global Funds Management S.A. (u)

Global Futures & Options SICAV

HSBC NAPT Luxembourg SA

HTR India Fund – SICAV

HYPO Capital Mgmt Invest Luxembourg SA

Henderson Independent Fund

International Bond Trust

INVESCO International Limited

InverSyst Investment Fund SICAV

Investisseurs Atlantiques SA

Kleinwort European Bd Fd Management SA

Korea Golden Gate Fund

Lloyds Bank Luxembourg (u)

Lombard Odier Invest (u)

MFS International Funds

Mercury Asset Management SA

Merrill Lynch Asset Management

Monterey Trust SICAV

Morgan Stanley Sicav

Nikko Asia Convertible Bond Fund

Nikko Bank (Luxembourg) S.A.

Nomura Asian Infrastructure Fd SICAV

Pacific Basin Growth Fund

Pan-Holding SA

Pictet Group

REIG Global Funds

River & Mercantile Latin American SICAV

Rosenberg Global Mngt Co SA (u)

Rosenberg Management SA (u)

Rosenberg US Japan Mngmt Co SA (u)

Edmond de Rothschild Group

SCI/TECH SA

Scudder, Stevens & Clark

Security Capital US Realty

Societe Generale Group

State Street Luxembourg SA

Swedi Securities

Swessinis Selection Fund SICAV

Swiss Bank Corporation

Target International Ltd

Templeton Emerging Asia

Tower Fund

Unico Financial Services SA Lux

Van Kampen Americas Capital Navigator Funds

"WINTERTHUR" Fund Mngmt Co (Lux) SA

World Trust Fund

Cmll Insurance Co Ltd

Cmll Ins Co Ltd/Clerical Med Gen Life Assce

Eagle Star Intl Life

Equitable Life (International)

Eurotite Assurance Group

Finance International Ltd

Friends Provident International

Irish Life International Ltd

Isle of Man Assurance Ltd

Lebrow International Group

Old Mutual Guernsey

Old Mutual Hong Kong

Old Mutual International (Guernsey) Ltd

Pan Euro Life societe anonyme

Premier Life

Professional Investment Consultants

Royal Life International

Royal Skandia Life Assurance Ltd (c)

Scottish Equitable International SA

Scottish Provident Intl Life Ass Ltd

Sun Alliance International Life

Sun Life International (IOM) Ltd

OFFSHORE INSURANCES

AXA Equity & Law Intl Life Assce Co

Abbrust International Ltd

Albany International Assurance Ltd

Allied Dunbar International Assce Ltd (c)

OTHER OFFSHORE FUNDS

ATSP Management Ltd

AXA Asset Management

Abbrust Fund Mngrs (Guernsey) Ltd

Acciones y Valores de Mexico SA de CV

Adig Investment

Africa Emerging Markets Fund

Agribusiness Fund Management Co

Alliance Capital

Allied Dunbar International Fund Mngrs (1600)F

Alpha Fund Management Ltd

Artekvest Capital Management Ltd

Arnhold and S. Bleichroeder, Inc

Asia Pacific Capital Strategies Fund

Asia Pacific Securities Corp Ltd

Asian Convertibles & Income Fd (Cayman)

Atlantic Investment Fund Ltd

Aurum Funds

BEA Associates

BZW Investment Management (HK) Ltd

Baltic Beer Bank & Trust Co Ltd

Bank of America

Bank of Nova Scotia Trust Co (Cayman) Ltd

Bank Von Ernst & Cie AG

Baque Fr Serv & Cr/Europ Inv Mgt Ltd

Barclays Diversified Fund

Baring International Group

The Bahamas Fund Ltd

Beer, Sharma International Ltd

Belgravia Capital Management Ltd

Bellwater Funds

Bermuda Capital Company Ltd

Blairmore Holdings Inc

Bonaventure Capital Management Ltd

CA Securities Investment Fund Mangt Ltd

CB Asset Management

COC International

CH Fund Managers (Bermuda) Limited

Cannon Investment Management Ltd

Capital International

Cathay Investment Fund Limited

Chameleon Funds Limited

Chencor Indian Investment Company Ltd

The China Fund

The China Invest & Development Fd Ltd

Citibank Global Asset Mgmt (Asia) Ltd

Citizens Investment Trust Mgt Co Ltd

City & Intersidend Securities Ltd

Clariden Bank

Coast Asset Management Corporation

Columbus Asset Management Ltd

Craven Enterprise Fund B.V.

Craig Grill Capital Ltd

Credit Investment Funds

Credit Lyonnais Intl Asset Mgmt (HK) Ltd (1200)

CreditanstalT Investment Co (Prague) Bs

Creeby Asset Management Ltd

Hull Capital Corpo

IAA Limited

Crystal Corporation N.V.

DWS Deutsche Ges. F. Wertpapierap

Daehan Investment Trust Co Ltd

Daiwa APT Japan Fund

Daiwa Intl Capital Management (H.K.) Ltd

Daiwa International Capital Mngt (Sgp) Ltd

Delfina Panamerica Trust Company Ltd

Deutscher Investment-Trust

Discover Investment

Dublin & Swiss

Dynamic Hedge Inc

The Legacy Fund

EBS Overseas Fund Ltd

EMR Eastern Natural Resources SA

East Asia Harmon Asset Mngt Ltd

East Europe Development Fund Ltd

Egerton European Dollar Fund Ltd

Egerton European Equity Fund Ltd

Emcor Limited

Emerging Markets Management

Enigma Investments Ltd – Cayman

The Environmental Investment Co Ltd

Ermitage Group

Europe 1992

Fenchurch Capital Management, Ltd.

Ferrell Management Ltd

Fidelity Advisor World Funds

Fidelity Investments

Financiere Atlas

Firebird Capital Management

First Investments Ltd

First Mexico Income Fund

Forex Professionals (Cayman) Ltd

Formosa Fund

Formosa Growth Fund Limited

Forum Executive Management Ltd

Framlington Group Plc

France Option Fund

Frank Russell Investments (Cayman) Ltd

Fortuna World Trade Fund

Fortunes Fund Management (Bermuda) Ltd

GBC Asset Management

GEM Dolphin Investment Managers Limited

GIM Fund Management (Bermuda) Ltd

The GP Taiwan Index Fund

GT Chile Growth Fund Ltd

Gala Currency Funds

Garnetta Banking Ltd

Garnetta Fund of Funds Ltd

Genesis Fund Managers Ltd

The Geo Summit Fund

Gertrust SA

Global Asset Management

Global Asset Management - Contd.

Global Alfa Inc

Global Convertible Magafund

Global Investment Fund Ltd

Global Leveraged Futures Fund

Global Portfolio (BVI) Management Ltd

Goldman Sachs

Green Way Guaranteed Ltd

Greystone International

Group One International Ltd

Gryphon Bond Fund Ltd (Bermuda)

Guardian Global Asset Management Ltd

HSBC Asset Management (Bahamas) Ltd

Merrill Lynch Guernsey

Hasenbichler Asset Management GmbH

Hanemann Hldgs NV Curacao

Hull Capital Corpo

IAA Limited

Crystal Corporation N.V.

IBJ Schroder Bank & Trust Company

IDF Investment & Development Financing Ltd

Impac Asia Pacific Funds Limited

India Investment AG

The India Magnum Fund NV

India Special Situations Fund Ltd

Indian Opportunities Fund Ltd

Indosuez Asset Management Asia Ltd

Indosuez Asset Mngt Latin America SA

Infinity Capital Corporation

Integral Hedged Assets Ltd

The International Investor

The Jaguar Fund N.V.

Jardine Fleming Inv Mngt Ltd

Jardine Fleming Unit Trusts Ltd

Europe 1992

Fenchurch Capital Management, Ltd.

Ferrell Management Ltd

Fidelity Advisor World Funds

Fidelity Investments

Financiere Atlas

Firebird Capital Management

First Investments Ltd

First Mexico Income Fund

Forex Professionals (Cayman) Ltd

Formosa Fund

Formosa Growth Fund Limited

Forum Executive Management Ltd

Framlington Group Plc

France Option Fund

Frank Russell Investments (Cayman) Ltd

Fortuna World Trade Fund

Fortunes Fund Management (Bermuda) Ltd

GBC Asset Management

GEM Dolphin Investment Managers Limited

GIM Fund Management (Bermuda) Ltd

The GP Taiwan Index Fund

GT Chile Growth Fund Ltd

Gala Currency Funds

Garnetta Banking Ltd

Garnetta Fund of Funds Ltd

Genesis Fund Managers Ltd

The Geo Summit Fund

Gertrust SA

Global Asset Management

Johnson Fry Securities Ltd

Jupiter Tyndall (Bermuda) Ltd

Kemmer Global Investments Limited

Ki Asia Pacific Fund Ltd

Kingate Global Fund Ltd

Kingate Offshore N.V.

Korea China Super Fund Ltd

Korea Intl Investment Fund

Korea Intl Investment Fund Ltd (II)

Korea International Investment Fund Ltd (III)

Korea International Investment Fund Ltd (IV)

Korea Investment Trust Co Ltd

LGT Asset Management PLC

Lazard Wertheim Fund Limited

Lehman Brothers Portugal Growth Fund

Liberal BAS Funds

Lippo Asia Ltd

Lloyd George Management

Lloyds Bank Government Bonds

Lloyds Bank International (Bahamas) Ltd

London Portfolio Services Group

MBF Unit Trust Managers Limited

MD Sass Re/Enterprise International Ltd

MFS Meridian Funds

Magellan Emerging Mkts Mngt (Jersey) Ltd

Magnum Funds

Magna Asset Management Ltd

Malaysia Capital Fund Ltd

Malaysia Fund (Labuan)

Malaysia Growth Fund

E D & F Man Investment Products

Masters International Advisors

Mandalay Fund Ltd

MassPierson

Merrill Lynch Asset Management

Millennium Asset Management

Minelaink International Ltd

Momentum Asset Mgmt

Monada Asset Management

Montgomery Emerg Communications Fd Ltd

Montgomery Emerging Markets Fund Ltd

Montpelier Asset Management Ltd

Moore Global Investment

Morgan Stanley/BLL Global Allocation Fd Ltd

Morgan Stanley Emerging Market Fund

National Investment Trust Company Ltd

Near East Opportunities Fund Limited

Northbird International Ltd (Bahamas)

North Atlantic Management Co Ltd

North Star Fund Managers (Cayman) Ltd

Odey Asset Management Ltd

Omega Overseas Partners Ltd

Opportunity Fund (x)

Optima Fund Management

Orbis Investment Management Ltd

Orbitex Management Ltd

ORIENT Growth Fd

Oriental Development Company Ltd

Oryx Fund Ltd

Oryx (India) Fund Ltd

Oryx International Growth Fund Ltd

PFC Internatl Portfolio Fd Mngt Ltd

PFM Israel Growth Fund Ltd

PFPC International Ltd

PRS International

Pacific Growth Fund

Pachual

Pakistan Fund

Panther Capital Advisers

Pasargy Limited

Park Place Capital Limited

Pegasus International Fund Inc

Peru Select Group of Funds Limited

Philippine Income Fund Inc

Phoenix Fixer, Inc

Portuguese Investment Fund Ltd

Power Capital Limited

Prospect Asset Management (CI) Ltd

Prospector Fund Management Ltd

Protea GAM Fund Inc

Putnam Embassy Funds Ltd

Putnam Europe Ltd

Quantum Group

Real Estate Strategies Ltd

Regent Fund Management Ltd

Regent Kingpin Capital Management Ltd

Republic Funds

Rosenwald, Realty & Co Ltd

Sabre Futures Fund

Schroder Investment Management Limited

Schroder Investment Mngt (Hong Kong) Ltd

Schroder Investment Mngt (Singapore) Ltd

Schroder Japanese Warrant Fund

Schroders Australia Ltd

For Scrobie see CH Fund Managers

Scudder, Stevens & Clark Inc

Seaforth International Inc

Seagaper Securities (Bermuda) Ltd

Selective Assets Management Limited

Shizzoni Investment Mngmt (Bermuda) Ltd

Siatra Fund Ltd

Simon Robinson Investment Mngmt Ltd

Smith Barney Funds

Societe Generale Group

Sodific Asset Management Inc

Sofaer Capital Inc

Carl Spangler KAG

Springfield Fund Mgmt (Gibraltar) Ltd

Sri Lanka Growth Fund

State Street Banque SA

Strone Offshore Limited

Summit Money Management (Bermuda) Ltd

Suisse Finance Corporation

Swiss Bank Corporation

TIS Group Managers Ltd

Taipei Fund

Taiwan American Fund Limited

Taiwan Opportunities Fund Ltd

Templeton Galbraith & Hansberger Ltd

The Thai-Euro Fund Ltd

The Thai Prime Fund Limited

The Thailand Fund

The Thailand Growth Fund

The Thailand Intl Fund Ltd

Thomas Currency Funds

Thornton Investment Management Ltd

Titan Capital Management

Trans Global Funds Group

Ultra Cerberus Fund Ltd

Ultra China Fund

Ultra Futures Fund Ltd

Ultra Internet Plus Fund

Ultra Sector Fund Ltd

Ultra Value Fund Ltd

Ultra Westcliff Fund Ltd

Value Partners 'A' Fund

Vale-Trac Investment Management Ltd

Vantage Investment Management Ltd

The Vietnam Frontier Fund

The Vietnam Fund Limited

Wells Fargo U.S. IT Fund

Worldwide Limited

Xiphias International Investment Fd Ltd

Zanett Lombardier Ltd

Zweig-DiMenna International Limited

MANAGED FUNDS NOTES

Prices are in dollars unless otherwise indicated and those designated $ refer to US dollars. Yields % allow for all buying expenses.

Prices of certain older insurance linked plans subject to capital gains tax on sales.

(*) Funds not GIS recognised. The regulatory authorities for these funds are:

Bermuda - Bermuda Monetary Authority
Guernsey - Financial Services Commission
Ireland - Central Bank of Ireland
Isle of Man - Financial Supervision Commission
Jersey - Financial Services Department
Luxembourg - Institut Monetaire Luxembourgeois.

Initial charge - Charge made on sale of units.
Selling price - Bid or redemption price.
Buying price - Offer or issue price.

Time - The time shown alongside the fund manager's name is the time of the fund's valuation point unless indicated by one of the following symbols:

(a) - 0001 to 1100 hours
(b) - 1101 to 1400 hours
(c) - 1401 to 1700 hours
(d) - 1701 to midnight

E - Exit charge on sale of units.
C - Manager's periodic charge deducted from capital.
H - Historic pricing F - Forward pricing
h - Distribution fee of UK basis.
p - Periodic premium insurance plans
s - Single premium insurance.
v - Dealing as a UCITS (Undertakings for Collective Investment in Transferable Securities).
x - Offered price includes all expenses except agent's commission.
z - Previous day's price.
SS - Switching gross.
♦ - Yield before Jersey tax.
T - Ex-warrants, xd - Ex-dividend.
g - Only available to charitable bodies
◆ - Yield column shows annualised rates of NAV increase.

LONDON STOCK EXCHANGE

MARKET REPORT

Corporate announcements take centre stage

By Philip Coggan, Markets Editor

Macroeconomic issues took a back seat yesterday as the market absorbed the news of the break-up of British Gas into two separate companies and a profits warning from Allied Domecq.

The FT-SE 100 index moved in a narrow range of just 12 points during the session, finally managing a *modest 0.9 point rise to* 3,747.5. *The* junior Mid 250 index did slightly better, adding 3.7 at 4,140.1.

Reaction to the British Gas announcement kept traders busy, with the stock recording the day's heaviest volume. The share price received an initial lift, but analysts *were sceptical about the demerger's* merits and the result was that the shares closed lower on the day.

The latest in a series of UK corporate profits warnings came from Allied Domecq, the drinks group. The warning was not directly linked to a slowing UK economy, referring as it did to difficult European sprits markets and a decline in sterling profits from Mexico.

Nevertheless, Allied's statement is likely to make investors even more cautious as the March results season approaches. The one Footsie company which did report figures yesterday – BSkyB, the satellite TV company – produced strong profits growth, but the shares were hit by *the Office of Fair Trading's referral* of the group's football deal to the Restrictive Practices Court.

More bad news came from the corporate sector when Coal Investments, a company which enjoyed a phenomenal share price rise in 1994, called in the administrators.

On the economic front, industrial production was slightly stronger than expected in December, but this was *mainly due to a rebound* in the energy sector because of the cold weather. Manufacturing output fell 0.7 per cent on the month and the fourth quarter also showed a decline from the previous three months.

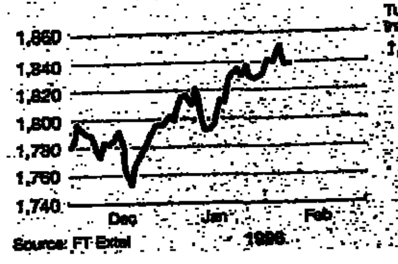
Mr Adam Cole, UK economist at James Capel, *said:* "Although part of this weakness – which is largely an export phenomenon – is being offset by strength in the consumer sector, there is little doubt that the economy overall will continue to grow at below its long term sustainable rate in the near term. Against this background, interest rates have further to fall."

The market received a couple of fillips from Wall Street: an early lift to the best level of the day, up 7 at 3,753.6, on the back of the overnight rebound in the Dow Jones Industrial Average; and an afternoon pick-up as the Dow climbed 20 points by the close of London trading. The latter helped the Footsie lift off its worst level of the day – down 5 at 3,741.6.

A recovery in gilts after Monday's decline also helped equities. The benchmark 10-year issue, which fell by more than a point on Monday, regained a third of a point. Monday's gilts weakness pushed the yield ratio, the relationship between gilts and equity yields, up to 2.2, its highest level since October, making it difficult for shares to make progress without a rebound in bonds.

The intense interest in British Gas helped to boost trading volume to 871.7m shares by the 6pm count. Customer business on Monday totalled £1.65bn.

FT-SE-A All-Share Index



Source: FT Extel

Equity shares traded

Turnover by volume (millions). Excluding: intra-market business and overseas turnover

Indices and ratios

FT-SE 100	3747.5	+0.9
FT-SE Mid 250	4140.1	+3.7
FT-SE-A 350	1864.8	+0.7
FT-SE-A All-Share	1839.41	+0.67
FT-SE-A All-Share yield	3.72	(3.71)
FT Ordinary Index	2760.5	+1.9
FT-SE-A Non Fins p/e	17.06	(17.08)
FT-SE100 Fut Mar	3766.0	+3.0
10 yr Gilt yield	7.68	(7.71)
Long gilt/equity yld ratio:	2.18	(2.20)

Best performing sectors

1. Building Mats .... +1.2
2. Breweries, Pubs & Rest........ +0.5
3. Telecommunications .... +0.5
4. Transport .... +0.5
5. Health Care .... +0.4

Worst performing sectors

1. Gas Distribution .... -0.8
2. Engineering, Vehicles .... -0.6
3. Life Assurance .... -0.6
4. Media .... -0.5
5. Oil Exploration .... -0.5

Demerger deflates Gas

British Gas suffered a day of heavy turnover and a swinging share price following news that the company is to split and the chief executive is to go.

Outsiders might be forgiven for being confused. Only a matter of days ago Lord Hanson decided he had to do something with his ailing conglomerate and announced plans to split it into four parts.

Almost immediately, Hanson shares started to tumble as the City worried about the sum of the parts calculations and future dividend prospects.

British Gas said yesterday that it was taking the same route. And after an initial surge of enthusiasm, the shares fell back.

Analysts pointed out that although the rationale might have been different the market *reaction was the same. British* Gas needs to separate into constituent parts because of the new Gas Act and is using the opportunity to demerge fully and "ring-fence" the hit from its onerous take or pay contracts.

However, demerger will not happen until 1997 and the company's problems, ranging from regulatory pressure to an agreement to buy gas for far more than it can sell it, will not disappear.

Ms Irene Himona of SGST summed up the investor attitude: "The presumption of demerger is that it will unlock value for shareholders, but we do not see how yesterday's *move can achieve that.*"

The shares, up 14 at best, ended 2 down at 242¼p after 53m changing hands.

Domecq warning

The latest demerger speculation settled on spirits and foods group **Allied Domecq** after it surprised the market with a profits warning.

At yesterday's annual meeting, the company warned that first-half profits will be 20 per cent lower than a year earlier due to a downturn in the spirits division and dilution caused by food disposals.

The news sent analysts racing to downgrade profit forecasts, with the market consensus moving down from around £625m to some £570m for the year to August 1996. Cazenove, the group's broker, which only downgraded profits estimates last week when it came down to £630m, was said to now be expecting the group to post profits in the region of £570m.

The shares dropped on the *news, and at the day's worst* were down 64 at 451p. However, yield buying together with talk of a demerger soon lifted the gloom and they recovered to close 8¼ off at 506¼p on heavy trade of 11m.

A disgruntled trader said: "This is a company that has been underperforming, and the current management has to start considering the demerger of the spirits business or face the share price going nowhere."

One leading analyst said simply that the company has to reduce its dividend by "at least a third".

Redland advances

Building materials leader Redland topped the Footsie performance charts in good volume on confirmation that the group is to sell its UK brick operations and beef up its stake in German subsidiary Bras.

The signs of pro-active management were said to have overcome tax worries and the shares shot *forward 12 to 407p* in 4.6m traded.

Some analysts had doubts about potential Advance Corporation Tax liabilities should Redland run down its UK earnings. But most industry watchers applauded the plans. NatWest Securities was quick off the mark with an add note.

Building related shares generally had a good day. **Rugby Group** firmed 5 to 117p, and **Pilkington** by 4 to 201p in 8.7m dealt.

There was selective buying among housbuilders. **Wilson Bowden** rose 10 to 396p and *Wimpey 5 to 144p.*

Telecoms giant **BT** was the second most active Footsie stock after British Gas. The shares finished 4 better at 360½p.

BT announces third-quarter results tomorrow and there are hopes that new chief executive Mr Peter Bonfield could set out to make an upbeat start to relations with the City.

There was also positive news for the group from Germany, with big utility RWE widely expected to announce today that it will join in with BT and Viag's joint German telecoms venture.

BT saw 34m shares traded and a significant two-way pull was said to have set in. The company faces a number of potentially stern regulatory tests this year (notably on pricing) and analysts are mostly divided on the immediate outlook.

NatWest Securities put out a *cautious hold note. The* broker's nominal target price for BT is below 350p. "But buying still requires 5 per cent dividend growth over the next five years which, given the regulatory background, cannot be guaranteed."

In the rest of the drinks sector, a meeting with analysts on Monday evening at **Vaux Group**, spoken of in recent sessions as both a bidder and a bid target, only served to encourage profit-taking in the group's shares. They closed 8 lower at 283p.

Scottish & Newcastle, which played host to several analysts last week, continued to find favour and the shares ended 11 higher at 665p after volume of 3.4m.

Among retailing stocks, **Boots** surrendered 9 to 606p in trade of 5m, with ABN Amro Hoare Govett said to have advised clients to switch out of the stock and into **Great Universal Stores**.

Shares in the latter hardened 2 to 693p as some 4.5m shares *changed hands.*

Independent petrol retailer **Frost Group** shook off the recent gloom brought about by the deepening price war among petrol retailers. The shares moved forward 8 to 123p in 1.4m trade.

Mercury Asset Management said it has raised its holding in the company by 1.7 percentage points to 15.4 per cent. Frost reports full-year figures next month and Credit Lyonnais Laing, the group's broker, is predicting profits of £11m.

Bargain hunting in **John Menzies** saw the shares move ahead 13 to 540p.

Premier Oil was heavily traded as the exploration and *production company saw what* one trader described as "genuine buying interest". The shares rose a penny to 28¾p, with 12m changing hands.

The market took a churlish view of **BSkyB**'s record profits and sold the shares down 22 *to 392p.*

Good interim profits had been forecast and once they were out of the way, marketmakers concentrated on the monopoly pressures the company faces.

There was an announcement by the Office of Fair Trading that the company's broadcasting contracts with the Premier League will be referred to the Restrictive Practices Court.

Upbeat traffic figures for January put some buzz back into **Eurotunnel** which, over the past 12 months, has been one of the worst performing London stocks on debt rescheduling concerns.

The shares have lagged behind the market by 80 per cent over the past year and 27 per cent over the past quarter. Yesterday they topped the FT-SE Mid 250 rankings with a 5 advance to 79p. Trading volume in Paris came close to 4m shares.

Diversified industrial **Williams Holdings** came off sharply, reversing recent *relative strength* with an 8½ decline to 335½p.

MARKET REPORTERS:
Peter John, Joel Kibazo, Jeffrey Brown.

FINANCIAL TIMES EQUITY INDICES

	Feb 6	Feb 5	Feb 2	Feb 1	Jan 31	Yr ago	*High	*Low
Ordinary Share	2760.5	2758.6	2784.8	2762.8	2768.4	2333.0	2788.2	2238.3
Ord. div. yield	3.79	3.79	3.76	3.79	3.79	4.51	4.73	3.76
P/E ratio net	17.07	17.05	17.20	17.08	17.10	17.85	21.33	15.35
P/E ratio nil	16.85	16.83	16.98	16.85	16.87	16.93	22.21	15.17

*For 1995/96. Ordinary Share index since compilation: high 2788.2 18/01/96; low 49.4 26/6/40. Base Date: 1/7/35.

Ordinary Share hourly changes

Open	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	High	Low
2765.7	2764.2	2759.9	2763.8	2758.3	2758.5	2756.6	2755.8	2759.8	2767.6	2693.6

	Feb 6	Feb 5	Feb 2	Feb 1	Jan 31	Yr ago
SEAQ bargains	31,942	36,020	33,086	32,442	33,606	23,992
Equity turnover (£m)†	-	1649.5	1961.3	1628.8	2426.7	1633.1
Equity bargains†	-	40,685	37,512	34,841	39,548	31,593
Shares traded (m)†	-	634.9	691.1	619.5	848.8	629.5

†Excluding intra-market business and overseas turnover.

■ London market data

Rises and falls*		52 Week highs and lows		LIFFE Equity options	
Total Rises	560	Total Highs	115	Total contracts	39,594
Total Falls	712	Total Lows	34	Calls	17,836
Same	1,577			Puts	21,758

Feb. 6 *Data based on Equity shares listed on the London Share Service.

FUTURES AND OPTIONS

■ FT-SE 100 INDEX FUTURES (LIFFE) £25 per full index point (APT)

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Mar	3769.0	3761.0	-2.0	3769.0	3752.0	9334	64274
Jun	3771.0	3763.0	-2.5	3771.0	3762.0	26	1322
Sep	3779.5	3781.0	+1.5	3779.5	3779.0	267	0

■ FT-SE MID 250 INDEX FUTURES (LIFFE) £10 per full index point

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Mar	4155.0	4155.0	+5.0	4155.0	4155.0	5	3307

■ FT-SE 100 INDEX OPTION (LIFFE) (*3747) £10 per full index point

	3550		3600		3650		3700		3750		3800		3850		3900	
	C	P	C	P	C	P	C	P	C	P	C	P	C	P	C	P
Feb	207½	1	159	2	111½	4	66½	10	30	24½	10½	58	2½	107	1	157
Mar	217½	8	173	13½	131	21½	93	34	62	53	37	79½	20½	115½	10	[illegible]
Apr	219½	19½	178	28½	141½	41	108½	60	78½	78	57	105	38½	137	23½	[illegible]
May	236	33	200	44	163	56½	132	75	101½	94½	77	120	64½	148½	38½	[illegible]
Jun†			210½	53			145	86			93	133			55½	[illegible]

Calls 2,470 Puts 12,958

■ EURO STYLE FT-SE 100 INDEX OPTION (LIFFE) £10 per full index point

	3575		3625		3675		3725		3775		3825		3875		3925	
Feb	182	1	133½	2½	87½	8	47½	18	18½	37	5	73½	1½	119½	½	[illegible]
Mar	191½	7	147½	12½	107½	22	73½	37½	46½	60½	26½	90½	13½	128½	5½	[illegible]
Apr	202	26	168	38½	128	51	96½	69	78	92	49½	120	32½	153	20½	[illegible]
Jun			198½	63½			132	95			92	142½			49½	[illegible]
Sep†			243	93			179½	125½			127½	169½			87½	[illegible]

Calls 3,159 Puts 2,380 * Underlying index value. Premiums shown are based on settlement prices. † Long dated expiry months.

LONDON RECENT ISSUES: EQUITIES

Issue price p	Amt paid up	Mkt. cap (£m.)	1995/96 High	Low	Stock	Close price p	+/-	Net div.	Div. cov.	Grs yld	P/E net
-	F.P.	6.28	6½	5¼	†Ballynatray	6		-	-	-	-
120	F.P.	24.0	125	115	Century Inns	120		-	-	-	-
-	F.P.	13.7	90	72	†Dmatek	73		-	-	-	-
60	F.P.	35.4	68	65	MediaKey	65		Lv0.96	-	1.8	-
-	F.P.	0.13	8	8	†Nthn Prlm Wrts	8		-	-	-	-
-	F.P.	1.13	105	100	†Revelation P'dilly	105		-	-	-	-
54	F.P.	3.09	60	53	†Self Sealing Syst	53	-3	-	-	-	-
-	F.P.	0.97	8½	6	†SkyePharma Wts	8		-	-	-	-
-	F.P.	6.00	205	125	†Viewinn	200		-	-	-	-

† Alternative Investment Market. For a full explanation of all other symbols please refer to The London Share Service notes.

FT GOLD MINES INDEX

	Feb 5	% chg on day	Feb 2	Year ago	Gross div yield %	P/E ratio	52 week High	Low
Gold Mines Index (33)	2520.73	+0.2	2516.98	1705.83	1.36	-	2520.73	1659.38
■ Regional Indices								
Africa (16)	3492.95	-1.3	3538.58	2683.81	2.60	38.56	3538.58	2272.74
Australasia (5)	2902.92	-0.8	2927.34	1980.72	2.01	44.18	2927.34	1788.20
North America (12)	2186.38	+1.1	2162.29	1379.75	0.62	65.96	2186.38	1366.39

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FT - SE Actuaries Share Indices — The UK Series

	Feb 6	Day's chge%	Feb 5	Feb 2	Feb 1	Year ago	Div. yield%	Net cover	P/E ratio	Xd adj. ytd	Total Return
FT-SE 100	3747.5	.....	3746.6	3781.3	3752.8	3072.7	3.83	2.07	15.77	9.12	1501.74
FT-SE Mid 250	4140.1	+0.1	4136.4	4152.2	4128.9	3407.1	3.54	1.75	20.14	21.96	1639.35
FT-SE Mid 250 ex Inv Trusts	4145.1	+0.1	4141.8	4157.5	4134.1	3411.4	3.66	1.80	18.81	23.61	1643.35
FT-SE-A 350	1864.8	.....	1864.1	1879.2	1865.8	1530.4	3.77	2.01	16.53	5.68	1529.56
FT-SE-A 350 Higher Yield	1867.8	+0.1	1865.7	1881.3	1866.3	1552.6	4.61	1.83	14.88	6.44	1271.73
FT-SE-A 350 Lower Yield	1866.6	.....	1867.3	1882.0	1870.2	1507.7	2.87	2.32	18.82	4.88	1277.78
FT-SE SmallCap	2023.47	.....	2023.51	2024.97	2021.87	1715.50	3.10	1.84	21.94	3.75	1638.91
FT-SE SmallCap ex Inv Trusts	1995.63	.....	1995.96	1996.73	1994.77	1691.56	3.33	1.93	19.49	3.90	1625.24
FT-SE-A ALL-SHARE	1839.41	.....	1838.74	1852.65	1840.21	1513.05	3.72	2.00	16.84	5.43	1532.79

■ FT-SE Actuaries All-Share

	Feb 6	Day's chge%	Feb 5	Feb 2	Feb 1	Year ago	Div. yield%	Net cover	P/E ratio	Xd adj. ytd	Total Return
10 MINERAL EXTRACTION(24)	3251.25	-0.3	3260.59	3291.35	3236.38	2873.61	3.60	2.02	17.19	0.00	1368.15
12 Extractive Industries(6)	4271.96	-0.3	4284.81	4299.19	4161.83	3504.74	3.47	2.56	14.07	0.00	1224.98
15 Oil, Integrated(3)	3293.45	-0.3	3302.29	3340.23	3299.16	2677.34	3.74	1.95	17.13	0.00	1420.73
16 Oil Exploration & Prod(15)	2081.72	-0.5	2091.26	2082.78	2095.69	1939.12	2.36	1.48	35.83	0.00	1235.64
20 GEN INDUSTRIALS(276)	2039.63	+0.2	2035.48	2047.80	2032.57	1811.88	4.05	1.87	16.46	1.97	1096.26
21 Building & Construction(34)	1066.47	+0.3	1062.93	1065.66	1062.79	943.44	3.76	2.17	15.31	0.36	878.94
22 Building Matls & Merchs(29)	1898.62	+1.2	1876.06	1897.33	1884.71	1742.93	3.95	2.03	15.60	0.61	942.57
23 Chemicals(23)	2457.57	+0.4	2448.80	2469.03	2453.59	2207.35	3.99	1.87	16.79	0.91	1144.85
24 Diversified Industrials(21)	1799.11	-0.2	1802.05	1818.36	1799.86	1778.81	5.48	1.50	15.21	3.32	985.52
25 Electronic & Elect Equip(36)	2297.84	+0.1	2295.37	2299.39	2270.60	1900.57	3.15	1.96	20.25	1.81	1179.86
26 Engineering(71)	2273.38	+0.2	2269.86	2280.31	2254.47	1737.01	3.26	2.24	17.02	3.48	1362.83
27 Engineering, Vehicles(13)	2685.62	-0.6	2703.32	2696.84	2680.72	2078.52	3.82	1.26	26.02	0.23	1369.52
28 Paper, Pckg & Printing(26)	2635.85	+0.1	2634.12	2643.27	2650.80	2702.75	3.78	2.53	13.06	0.39	1081.34
29 Textiles & Apparel(19)	1483.57	+0.1	1481.48	1485.36	1482.84	1476.85	4.69	1.79	14.87	0.00	889.79
30 CONSUMER GOODS(81)	3653.14	-0.1	3657.82	3703.10	3694.29	2850.48	3.75	1.77	18.77	7.79	1326.39
32 Alcoholic Beverages(9)	2778.88	-0.1	2780.29	2794.66	2795.61	2587.49	4.38	1.79	15.93	28.48	992.48
33 Food Producers(23)	2594.95	-0.2	2599.15	2619.14	2623.86	2334.36	4.13	1.74	17.42	4.53	1152.88
34 Household Goods(15)	2632.59	+0.4	2622.68	2647.23	2640.50	2504.00	3.63	2.15	16.05	1.96	989.17
36 Health Care(20)	1917.21	+0.4	1909.75	1912.18	1914.93	1589.45	2.67	1.76	26.64	2.08	1152.32
37 Pharmaceuticals(13)	5212.68	-0.3	5229.63	5315.96	5293.87	3487.16	3.15	1.89	23.48	0.05	1741.00
38 Tobacco(1)	4879.23	+0.3	4862.29	4955.47	4917.35	3775.02	4.92	1.94	13.11	0.00	1180.43
40 SERVICES(253)	2298.02	.....	2297.44	2312.69	2300.89	1869.80	3.00	2.10	19.80	11.04	1183.30
41 Distributors(32)	2618.86	-0.3	2625.95	2643.29	2630.14	2277.68	3.66	1.79	19.05	0.00	953.14
42 Leisure & Hotels(23)	2659.13	+0.3	2649.78	2669.62	2611.73	2090.49	2.91	1.94	22.08	104.50	1520.57
43 Media(46)	3706.57	-0.5	3725.72	3729.37	3693.58	2782.59	2.21	2.16	26.11	7.49	1329.32
44 Retailers, Food(15)	1927.20	+0.1	1924.71	1950.37	1972.42	1818.47	3.79	2.41	13.70	2.67	1208.42
45 Retailers, General(43)	1916.31	-0.1	1918.77	1933.18	1931.21	1539.75	3.10	2.27	17.81	2.98	1081.95
47 Breweries, Pubs & Rest.(24)	2976.47	+0.5	2960.92	2968.26	2945.36	2164.17	3.32	2.06	18.11	12.52	1417.75
48 Support Services(49)	1895.26	+0.7	1881.53	1886.55	1886.86	1454.23	2.35	2.53	21.03	1.81	1256.70
49 Transport(21)	2296.61	+0.5	2284.90	2326.46	2315.86	2197.23	3.77	1.39	23.85	1.17	943.62
60 UTILITIES(33)	2456.06	+0.2	2450.24	2459.16	2431.41	2380.00	5.06	2.00	12.37	27.11	1036.86
62 Electricity(12)	2761.08	+0.1	2757.29	2764.85	2725.81	2415.65	5.03	2.60	9.56	104.64	1336.27
64 Gas Distribution(2)	1613.47	-0.8	1626.27	1586.77	1580.62	2042.04	7.43	1.04	16.18	0.00	809.50
66 Telecommunications(7)	2002.06	+0.5	1991.68	2020.18	1993.81	2046.41	4.22	1.74	17.02	0.00	906.19
68 Water(12)	2122.33	+0.4	2114.48	2103.77	2090.30	1685.28	5.75	2.59	8.40	3.61	1130.92
69 NON-FINANCIALS(667)	1941.37	.....	1940.84	1955.75	1941.60	1641.53	3.77	1.95	17.06	7.07	1453.32
70 FINANCIALS(108)	2940.96	+0.1	2939.42	2962.87	2948.66	2112.70	3.84	2.32	13.99	0.62	1242.29
71 Banks, Retail(8)	4193.37	+0.1	4189.36	4238.71	4215.59	2770.37	3.57	2.60	13.46	0.00	1344.23
72 Banks, Merchant(6)	3510.15	-0.3	3520.73	3521.84	3550.49	3087.63	2.65	2.41	19.55	0.00	1100.40
73 Insurance(24)	1422.45	+0.2	1419.98	1428.64	1423.76	1160.53	5.13	2.89	9.07	0.26	1042.71
74 Life Assurance(6)	3475.84	-0.6	3496.20	3497.09	3460.47	2347.09	4.01	1.53	20.34	0.00	1416.07
77 Other Financial(23)	2481.76	+0.3	2473.56	2472.53	2462.83	1847.81	3.60	1.87	18.55	1.06	1392.09
79 Property(41)	1448.30	+0.2	1445.83	1449.32	1448.85	1370.40	4.30	1.32	22.07	2.51	879.84
80 INVESTMENT TRUSTS(127)	3151.77	+0.2	3146.62	3156.86	3141.02	2627.29	2.12	1.05	56.26	4.31	1092.23
89 FT-SE-A ALL-SHARE(902)	1839.41	.....	1838.74	1852.65	1840.21	1513.05	3.72	2.00	16.84	5.43	1532.79
FT-SE-A Fledgling	1142.63	.....	1142.24	1142.26	1139.63	985.23	2.98	2.16	19.55	2.55	1183.10
FT-SE-A Fledgling ex Inv Trusts	1137.54	.....	1137.15	1136.88	1135.20	987.00	3.25	2.36	16.30	2.68	1177.07

■ Hourly movements

	Open	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.10	High/day	Low/day
FT-SE 100	3751.2	3749.4	3745.0	3748.2	3744.2	3744.8	3744.8	3741.8	3747.7	3753.6	3741.6
FT-SE Mid 250	4138.0	4137.1	4134.6	4135.3	4136.8	4137.8	4138.1	4138.4	4140.0	4140.1	4134.2
FT-SE-A 350	1866.1	1865.3	1863.3	1864.6	1863.2	1863.5	1863.6	1862.4	1864.9	1867.0	1862.3

Time of FT-SE 100 Day's high: 8.42am Day's low: 2.57pm. FT-SE 100 1995/96 High: 3781.3 (2/2/96) Low: 3576.9 (19/12/95).

■ FT-SE Actuaries 350 Industry baskets

	Open	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.10	Close	Previous	Change
Bldg & Cnstrcn	1072.7	1072.7	1073.8	1078.9	1078.4	1077.2	1077.2	1077.4	1079.6	1080.0	1073.6	+6.4
Pharmaceuticls	5181.5	5181.3	5175.9	5177.5	5178.4	5177.4	5177.5	5147.2	5156.4	5156.4	5173.0	-16.6
Water	2110.8	2110.8	2105.9	2104.6	2112.8	2112.3	2115.3	2115.7	2115.6	2115.6	2107.7	+7.9
Banks, Retail	4245.5	4233.8	4237.0	4250.6	4247.6	4246.4	4249.9	4246.4	4248.9	4246.9	4242.8	+4.1

Additional information on the FT-SE Actuaries Share Indices is published in Saturday issues. Lists of constituents are available from FT-SE International Ltd., The Podium, St Alphage House, 2 Fore Street, London, EC2Y 5DA.

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TRADING VOLUME

■ Major Stocks Yesterday

	Vol. 000s	Closing price	Day's change
3i†	385	411	+1
ASDA Group†	6,500	104½	+1½
Abbey National†	3,200	604	[illegible]
Albert Fisher	957	47	+½
Allied Domecq†	11,000	506¼	-8¼
Anglian Water	1,100	575	[illegible]
Argos†	548	582	[illegible]
Argyll Group†	4,100	312	-1
Arjo Wiggins	328	187	+1
Assoc. Brit. Foods†	297	389	+4
Assoc. Brit. Ports	262	285	-3
BAA†	1,300	489	+4
BAT Inds.†	5,800	576	+3
BET	3,400	138½	[illegible]
BICC	905	288	+1
BOC†	1,800	944	+16
BP†	6,900	534	-3½
BPB Inds.	1,900	313	-1
BSkyB†	8,700	392	-22
BT†	34,000	360½	+4
BTR†	5,700	334½	+1
Bank of Scotland†	5,800	294	+5
Barclays†	7,600	756	[illegible]
Bass†	561	738	+4
Blue Circle†	1,000	332	+7
Booker	317	370	-4
Boots†	5,000	606	-9
Britannic	332	753	
Brit. Aerospace†	3,000	863	-12
British Airways†	4,700	505	+3
British Gas†	53,000	242¼	-2
British Land	77	395	
British Steel†	12,000	172	
Bunzl	718	195	
Burmah Castrol†	617	986	+5
Burton†	7,500	125½	-3
Cable & Wire†	4,900	457	[illegible]
Cadbury Schweppes†	2,100	535	[illegible]
Caradon	1,900	228	[illegible]
Carlton Comms.†	1,700	1085	-1
Coats Viyella	774	189	+1
Comm. Union†	558	612	
Compass	1,100	485	+6
Cookson†	2,500	288	+2
Courtaulds†	1,800	436	+4
Dalgety	58	417	+4
De La Rue	159	726	+1
Dixons†	3,200	429	[illegible]
East Midland Elect.	187	715	
Electrocomps	2,100	340	-2
Eng China Clays	27	321	[illegible]
Enterprise Oil†	1,300	389	-6
Eurotunnel Units	574	79	+5
FKI	1,200	159	+1
Foreign & Col. I.T.†	495	186½	+1
Forte	2,900	352	+4
Gen. Accident†	1,100	641	
General Elect.†	4,100	358	-½
Glaxo Wellcome†	7,500	948	-8½
Glynwed	45	344	+1
Granada†	4,400	737	+8
Grand Met.†	5,000	434	[illegible]
GUS†	4,500	693	+2
Greenalls†	1,100	594	-8½
GRE†	3,400	257	-3
GKN†	1,800	858	-5
Guinness†	2,200	465½	-2
HSBC (75p shs)†	2,300	1088	-10½
Hammerson	853	358	+1
Hanson†	18,000	190½	-2
Harrisons Crosfield	354	165	-2
Hays	1,500	358	-3
Hillsdown	530	175	-1
IMI	407	326½	-3½
ICI†	654	823	-6
Inchcape	1,700	287	
Johnson Matthey	469	587	+8
Kingfisher†	559	526	-2
Kwik Save	570	601	-7
Ladbroke†	2,300	178	
Land Securities†	1,300	621	+2
Laporte	551	638	-2
Legal & General†	1,400	705	-6
Lloyds Abbey	695	484	+1
Lloyds TSB†	4,900	327	+7
LASMO†	663	167	
London Elect.	433	751	-1
Lonrho	2,400	212	
Lucas	1,700	196	-4
MEPC	348	481	+1
MFI	249	160	-1
Marks & Spencer†	9,300	429	+1
Mercury Asset Man	588	894	[illegible]
Midlands Elect.	2,600	385	+1
Morrison (Wm.)	1,100	147	-2
NFC	1,600	154	
NatWest Bank†	6,100	571	+7
National Grid†	4,300	189½	-1½
National Power†	3,100	458	+8
Next	2,300	488	+3
Northern Elect.	149	801	
Northern Foods	1,600	191	
Pearson†	1,800	660	+10
P & O†	1,000	541	+8
Pilkington†	8,700	201	+4
PowerGen†	1,200	535	[illegible]
Prudential†	2,600	453	-1
REXAM†	1,500	370	
RMC†	247	1062	[illegible]
RTZ†	3,300	943	-9
Racal	817	[illegible]	+1
Rank Org.†	2,600	[illegible]	-6
Reckitt & Colman†	891	660	+8
Redland†	4,600	407	+12
Reed Intl.†	1,700	1009	+6
Rentokil†	1,300	362	[illegible]
Reuters†	2,400	631	+1
Rolls Royce†	11,000	217	+6
Ryl Bk Scotland†	2,400	558	
Royal Insurance†	330	377	[illegible]
Sainsbury†	1,600	389	-2
Schroders†	51	1270	-1
Scottish & New.†	3,400	665	+11
Scot. Hydro-Elect.	1,200	345	-2
Scottish Power†	578	392	+1
Sears	8,700	95½	-1½
Sedgwick	1,300	123	[illegible]
Seaboard	4	534	[illegible]
Severn Trent†	1,900	643	+4
Shell Transport†	3,000	858	[illegible]
Siebe†	1,800	801	+3
Slough Ests	111	218	[illegible]
Smith (W.H.)	431	413	+4
Smith & Nephew†	10,000	185½	[illegible]
SmKl Beecham†	5,000	715	-4
SmKl Beecham Uts.†	2,000	708	-2
Smiths Inds.†	720	865	-4
Southern Elect.†	619	828	[illegible]
South Wales Elect.	5	855	[illegible]
South West Water	114	513	[illegible]
Southern Water	372	687	+1
Standard Chartd.†	2,400	617	-15
Storehouse	1,800	295	-3
Sun Alliance†	3,100	381	[illegible]
T&N	909	166	
TI Group†	1,200	479	-8
Tarmac	4,100	118½	+1
Tate & Lyle†	350	489	+2
Taylor Woodrow	2,300	138	
TeleWest	115	134½	+½
Tesco†	4,100	291	-½
Thames Water†	2,100	553	-1
Thorn EMI†	866	1720	+7
Tomkins†	3,300	273	+5
Trafalgar House	6,400	31¼	-1
Unigate	877	432	+1
Unilever†	1,000	1310	[illegible]
United Biscuits	3,000	244	-2
Utd. News & Media	746	595	[illegible]
United Utilities†	3,200	600	+2
Vodafone†	20,000	237½	[illegible]
WPP	1,300	177	
Welsh Water	1,200	769	+7
Wessex Water	732	336	+6
Whitbread†	425	721	[illegible]
Williams Hldgs.†	1,600	335½	-8½
Willis Corroon	1,500	148	[illegible]
Wimpey	429	144	[illegible]
Wolseley†	1,000	487	[illegible]
Yorkshire Elect.	362	741	+1
Yorkshire Water	856	620	[illegible]
Zeneca†	2,400	1247	-1

Based on trading volume for a selection of major securities dealt through the SEAQ system yesterday until 4.30pm. † Indicates an FT-SE 100 index constituent. All trades are rounded.

هكذا من الأصل

WORLD STOCK MARKETS

EUROPE

AUSTRIA (Feb 6 / Sch)

		+/-	High	Low	Yld	P/E
AusAir	1,948	-16	2,055	1,325	2.6	...
Bk Aust	825	+5	892	702	1.5	...
BkAuPf	478	+3	529	430	2.1	...
BUAG	822	-3	835	650	...	...
BrauUn	597	+14	719	460	...	...
Credit	839	+3	855	479	1.6	...
CredPf	607	+10	837	460	1.6	...
EA Gen	3,700	+30	3,775	2,490	0.4	...
EVN	1,415	+39	1,415	867.30	1.6	...
Jenbac	1,730	+11	1,900	1,385	5.8	...
Lenzng	901	-4	998	638	7.1	...
Leykam	385	+11	506	314	2.3	...
OMV	985	+7	1,139	800	2.0	...
Oest B	551	+11	612	440	2.7	...
PerlZm	780	-25	920	700	2.6	...
RadexH	385	+1	410	289	2.7	...
SteyrD	188	-4	200	138	3.6	...
Univ B	488	...	727	360	...	...
VA Tec	1,390	+20	1,415	973	1.7	...
VoestA	688	+6	745	562	2.4	...
VtAir	706	+8	733	421	1.1	...
VA St	364	-3	377	277	...	...
Wienbg	2,315	+20	2,718	1,850	1.8	...

BELGIUM/LUXEMBOURG (Feb 6 / Frs.)

CZECH REP (Feb 6 / Koruna)

		+/-	High	Low	Yld	P/E
CkaSpo	179	+3	338	149	2.8	...
Cez	997	+7	1,445	835	...	...
Cokoliv	2,640	+20	3,400	1,765	1.5	...
IBP	282	-3	274	249	...	...
KomBnk	1,750	+25	1,750	1,115	3.4	...
SkrPlz	1,625	+25	1,985	985	...	...
Tabak	4,445	+145	4,745	2,900	7.6	...

DENMARK (Feb 6 / Kr)

FINLAND (Feb 6 / Mks)

FRANCE (Feb 6 / Frs.)

GERMANY (Feb 6 / Dm.)

GREECE (Feb 6 / Drachma)

		+/-	High	Low	Yld	P/E
CommBk	8,990	-190	10,895	7,770	8.9	...
CredBk	15,350	+170	15,500	10,000	6.2	...
DeltaD	4,270	+120	5,350	3,705	2.1	...
ErgoBk	11,205	+50	11,590	8,600	6.2	...
Hellbo	8,580	+40	8,750	5,080	1.4	...
HelSgr	2,860	...	3,082	2,855	4.9	...
HerCem	2,795	+95	2,885	1,850	...	...
IntCoS	5,700	+150	8,840	4,700	...	...
IonBnk	4,900	+145	6,030	3,940	...	...
NtnBkG	13,045	-5	13,940	10,250	5.9	...

ITALY (Feb 6 / Lire)

NETHERLANDS (Feb 6 / Fls.)

NORWAY (Feb 6 / Kroner)

POLAND (Feb 6 / Zloty)

PORTUGAL (Feb 6 / Escudo)

SPAIN (Feb 6 / Pts.)

SWEDEN (Feb 6 / Kronor)

SWITZERLAND (Feb 6 / Frs)

TURKEY (Feb 6 / Tk Lira)

PACIFIC

JAPAN (Feb 6 / Yen)

HONG KONG (Feb 6 / H.K.$)

INDONESIA (Feb 6 / Rupiah)

MALAYSIA (Feb 6 / MYR)

NEW ZEALAND (Feb 5 / NZ $)

SINGAPORE (Feb 6 / S$)

AUSTRALIA (Feb 6 / Aust$)

SOUTH KOREA (Feb 6 / Won)

TAIWAN (Feb 6 / TW $)

THAILAND (Feb 6 / Baht)

NORTH AMERICA

CANADA

TORONTO (Feb 6 / Can $)

4 pm close

MONTREAL (Feb 6 / Can $)

4 pm close

AFRICA

SOUTH AFRICA (Feb 6 / Rand)

		+/-	High	Low	Yld	P/E
ABSA	21.25	-25	23	11	2.0	...
AECI	24.50	-50	32	19.75	2.4	...
Allied	110	...	112	77	3.0	...
Amic	176	...	210	160	2.0	...
Amcoal	250	-5	290	217	2.9	...
AngAm	259	-1	275	182	1.5	...
Anggold	405	-4	420	286	3.3	...
Angtst?	28	...	31.50	20.50	...	...
Angvaal	26.50	...	33	23	1.0	...
AngvlN?	160	-2.50	172	97	0.8	...
Barlow	58	...	69.50	30.25	1.0	...
Beatrix	36.30xd	+.30	40	20	2.3	...

NOTES - Prices on this page are as quoted on the individual exchanges and are mostly last traded prices. Highs/Lows are for 1995/96, except Toronto & Montreal (daily). ‡ Dealings suspended. xd Ex dividend. xc Ex scrip issue. xr Ex rights. xa Ex all. † Priced in US $.

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INDICES

	Feb 6	Feb 5	Feb 2	1995/96 High		1995/96 Low	
Argentina							
General(29/12/77)	(u)	17369.21	17927.21	18191.56	31/1/96	9831.09	9/3/95
Australia							
All Ordinaries(1/1/80)	2269.7	2271.7	2293.2	2293.20	2/2/96	1823.39	8/2/95
All Mining(1/1/80)	1049.8	1058.7	1058.5	1058.50	2/2/96	795.30	8/2/95
Austria							
Credit Aktien(30/12/84)	384.84	382.59	385.49	386.42	2/1/95	328.90	27/10/95
Traded Index(2/1/91)	1089.09	1075.45	1084.51	1089.09	6/2/96	882.15	23/10/95
Belgium							
BEL20(1/1/91)	1684.51	1685.99	1704.53	1715.74	1/2/96	1271.53	9/3/95
Brazil							
Bovespa(29/12/83)	(u)	53329.0	54109.0	54109.00	2/2/96	21392.00	9/3/95
Canada							
Metals Minls◆(1975)	(u)	5230.11	5251.35	5286.37	23/11/95	3808.63	1/3/95
Composite◆(1975)	(u)	5033.32	5032.0	5033.32	5/2/96	3991.41	30/1/95
Portfolio(4/1/83)	(u)	2467.35	2472.35	2472.35	2/2/96	1953.36	30/1/95
Chile							
IPSA Gen♥(31/12/80)	(u)	5732.79	5752.22	6363.10	11/7/95	4576.98	9/3/95
Denmark							
CopenhagenSE(3/1/83)	386.19	386.46	388.06	389.29	25/1/96	330.01	29/3/95
Finland							
HEX General(28/12/90)	1823.48	1795.79	1812.94	2332.22	14/9/95	1555.30	29/3/95
France							
SBF-250(31/12/90)	1323.62	1320.54†	1337.73	1338.17	1/2/96	1154.41	13/3/95
CAC 40(31/12/87)	1988.47	1985.59	2022.21	2024.09	1/2/96	1721.14	23/10/95
Germany							
FAZ Aktien(31/12/58)	867.81	866.22	876.95	882.69	1/2/96	708.87	30/3/95
Commerzbank(1/12/53)	2518.5	2512.0	2547.40	2559.90	31/1/96	2018.70	30/3/95
DAX(30/12/87)	2428.28	2419.24	2462.05	2470.14	31/1/96	1910.96	28/3/95
Greece							
Athens SE(31/12/80)	972.56	962.07	980.63	986.30	22/1/96	787.15	16/3/95
Hong Kong							
Hang Seng(31/7/64)	11391.38	11484.12	11469.40	11484.12	5/2/96	6967.93	23/1/95
India							
BSE Sens.(1979)	3154.89	3233.32	3172.83	3632.09	2/1/95	2828.08	25/1/96
Indonesia							
Jakarta Comp.(10/8/82)	592.92	591.14	587.57	592.92	6/2/96	414.21	19/4/95
Ireland							
ISEQ Overall(4/1/88)	2315.07	2312.87	2333.28	2334.07	31/1/96	1813.59	23/1/95
Italy							
Banca Comm Ital(1972)	625.08	626.84	631.33	680.54	10/2/95	547.79	5/12/95
MIB General(2/1/95)	1060.0	1063.0	1070.0	1070.00	2/2/96	882.00	15/1/95
Japan							
Nikkei 225(16/5/49)	20751.15	20653.38	20904.03	20936.12	1/2/96	14485.40	3/7/95
Nikkei 300(1/10/82)	299.05	298.45	301.53	307.98	5/1/96	222.25	13/6/95
Topix(4/1/68)	1602.89	1601.00	1617.51	1632.03	5/1/96	1193.16	13/6/95
2nd Section(4/1/68)	2098.27	2110.31	2119.19	2130.88	4/1/96	1441.98	13/6/95
Malaysia							
KLSE Comp.(4/4/86)	1082.79	1079.88	1073.18	1086.84	5/6/95	846.57	24/1/95
Mexico							
IPC(Nov 1978)	(u)	(c)	3101.92	3101.92	2/2/96	1447.82	27/2/95
Netherland							
CBS TtlRtnGen(End 83)	555.8	552.8	558.2	558.20	2/2/96	422.90	23/3/95
CBS All Shr(End 83)	336.6	334.7	338.0	338.00	2/2/96	285.20	23/3/95
New Zealand							
Cap. 40(1/7/86)	(c)	2109.37	2102.60	2206.02	20/10/95	1981.43	5/1/95
Norway							
Oslo SE(Ind)(2/1/83)	1275.45	1274.80	1280.44	1316.20	9/1/96	1036.09	10/3/95
Philippines							
Manila Comp(2/1/85)	2915.03	2919.24	2927.26	2958.12	10/7/95	2198.49	20/11/95
Portugal							
BTA(1977)	2645.5	2654.5	2656.5	2911.60	9/1/95	2412.90	22/11/95
Singapore							
SES All-S'pore(2/4/75)	607.49	610.37	603.56	610.37	5/2/96	472.90	23/1/95
South Africa							
JSE Gold(28/9/78)	1867.5♥	1880.9	1903.2	2023.00	2/1/95	1250.20	30/10/95
JSE Ind.(28/9/78)	8538.7♥	8545.4	8605.5	8738.30	25/1/96	6222.00	31/1/95
South Korea							
KoreaCmpEx*(4/1/80)	881.21	880.68	881.52	1027.37	2/1/95	842.72	20/1/96
Spain							
Madrid SE(30/12/85)	328.30	327.34	330.57	331.86	1/2/96	284.06	23/3/95
Sweden							
AffarsvarldenGen(1/2/37)	1788.6	1776.8	1795.8	1872.18	19/9/95	1438.60	29/3/95
Switzerland							
Swiss Bk Ind(31/12/58)	1548.08	1538.01	1555.30	1578.89	4/1/96	1174.83	13/3/95
SBC General(1/4/87)	1135.96	1126.50	1141.40	1165.59	4/1/96	870.86	13/3/95
Taiwan							
Weighted Pr.*(30/6/66)	4890.22	4759.25	4791.32	7061.49	5/1/95	4503.37	14/8/95
Thailand							
Bangkok SET(30/4/75)	1415.04	1410.98	1412.61	1472.04	10/7/95	1136.89	16/3/95
Turkey							
Istanbul Cmp.(Jan 1986)	51692.8	52298.3	50911.9	54653.80	21/4/95	24644.30	23/1/95
WORLD							
MS Capital Int(1/1/70)	752.8*	751.5	748.5	752.80	6/2/96	586.21	23/1/95
CROSS-BORDER							
Eurotrack 100(26/10/90)	1551.45	1548.16	1560.84	1570.74	1/2/96	1222.41	13/3/95
Euro Top-100(26/6/90)	1398.57	1390.38	1410.12	1410.12	2/2/96	1117.34	9/3/95
JCapdDrgns(31/12/88)	(u)	380.75	378.75	380.75	5/2/96	262.07	23/1/95
ING Bmgs Emrg(7/1/92)	161.88	162.72	161.76	162.72	5/2/96	117.16	10/3/95

INDEX FUTURES

	Open	Sett Price	Change	High	Low	Est. vol.	Open int.
■ CAC-40 (FFr200 x index)							
Feb	1996.0	1996.0	+6.0	2002.0	1981.0	14,788	31,450
Mar	2006.0	2003.5	+5.5	2009.0	1989.5	275	24,787
■ DAX							
Mar	2425.0	2448.0	+23.5	2449.0	2422.0	19,942	-
Jun	2437.0	2459.5	+18.0	2456.0	2436.0	202	-
■ OMX							
Feb	1390.00	1400.00	+16.0	1401.75	1390.00	2,581	18,584
Mar	1401.75	1400.50	+5.5	1401.75	1400.50	40	1,170
■ SOFFEX							
Jan	3238.0	3254.6	+32.1	3257.5	3230.2	8,030	17,059
Feb	3249.5	3260.0	+36.5	3260.0	3243.0	113	1,322

Sat Feb 3: Taiwan Weighted Price 4790.08; Korea Comp Ex 884.63. Base values of all indices are 100 except Australia All Ordinary and Metals and DAX – all 1,000; JSE Gold – 255.7; JSE 25 Industrials – 264.3; NYSE All Common – 50 and Standard and Poor's – 10. §§ Mining – 500; Austria Traded, BEL20, HEX Gen., MIB Gen., SBF250, CAC40, Euro Top-100, ISEQ Overall; Toronto Comp./Metals & Montreal. ◆ Toronto. (c) Closed. (u) Unavailable. ‡ IBIS/DAX after-hours index: Feb 6 - 2437.98 +21.14.

US INDICES

Dow Jones	Feb 5	Feb 2	Feb 1	1995/96 High	1995/96 Low	Since compilation High	Since compilation Low
Industrials	5407.59	5373.99	5405.06	5407.59 (5/2/96)	3832.08 (30/1/95)	5407.59 (5/2/96)	41.22 (2/7/32)
Home Bonds	105.81	105.91	105.80	106.91 (2/2/96)	93.63 (3/1/95)	108.77 (18/10/93)	54.99 (1/10/81)
Transport	1955.16	1980.22	1943.85	2092.11 (5/12/95)	1473.19 (3/1/95)	2092.11 (5/12/95)	12.32 (8/7/32)
Utilities	230.23	228.90	230.29	230.86 (31/1/96)	183.03 (3/1/95)	256.46 (31/8/93)	10.50 (8/4/32)

DJ Ind. Day's high 5433.98 (5442.99) Low 5319.43 (5338.94) (Theoretical)
Day's high 5407.95 (5410.84) Low 5348.34 (5357.37) (Actual)

Standard and Poors	Feb 5	Feb 2	Feb 1	1995/96 High	1995/96 Low	Since compilation High	Since compilation Low
Composite‡	641.43	635.84	638.46	641.43 (5/2/96)	459.11 (3/1/95)	641.43 (5/2/96)	4.40 (1/6/32)
Industrials♥	753.68	746.95	750.22	753.88 (5/2/96)	546.28 (3/1/95)	753.88 (5/2/96)	3.62 (21/6/32)
Financial	84.50	84.09	84.47	85.07 (31/1/96)	41.54 (3/1/95)	85.07 (31/1/96)	8.64 (1/10/74)
NYSE Comp.	342.26	340.08	341.23	342.26 (5/2/96)	250.73 (3/1/95)	342.26 (5/2/96)	4.46 (25/4/42)
Amex Mkt Val	557.27	555.54	555.88	557.27 (5/2/96)	433.12 (6/1/95)	557.27 (5/2/96)	29.31 (9/12/72)
NASDAQ Cmp	1083.34	1072.11	1069.45	1083.34 (5/2/96)	743.58 (3/1/95)	1083.34 (5/2/96)	54.87 (31/10/72)

■ RATIOS

	Feb 2	Jan 26	Jan 19	Year ago
Dow Jones Ind. Div. Yield	2.19	2.24	2.28	2.73
	Jan 31	Jan 24	Jan 17	Year ago
S & P Ind. Div. yield	1.91	1.95	2.01	2.42
S & P Ind. P/E ratio	19.43	18.96	18.42	18.96

■ NEW YORK ACTIVE STOCKS

Monday	Stocks traded	Close price	Change on day
Micron Tech	7,527,100	37¼	+1¼
Texas Instr	6,058,200	53½	+4⅞
Ford Motor	5,338,500	29⅝	----
Wal-Mart	4,934,800	22¼	+¼
Fed Natl	4,414,700	32⅜	----
Compaq	4,375,300	51	+3½
Asia Pulp	4,151,000	10⅛	+⅛
Amer T & T	3,643,200	65¼	+½
IBM	3,261,100	112⅛	+2⅞
Grace WR	2,972,100	69⅞	+⅛

■ TRADING ACTIVITY

● Volume (million)	Feb 5	Feb 2	Feb 1
New York SE	380.223	418.487	458.738
Amex	29.42	34.662	38.679
NASDAQ	573.786	573.786	584.923
NYSE			
Issues Traded	3,091	3,084	3,097
Rises	1,250	1,040	1,389
Falls	1,099	1,270	986
Unchanged	742	774	722
New Highs	154	204	263
New Lows	18	20	11

	Open	Latest	Change	High	Low	Est. vol.	Open Int.
■ S&P 500							
Mar	641.90	643.80	+1.90	643.80	640.90	78,572	189,139
Jun	649.30	649.30	+1.80	649.30	647.00	784	9,447
	Open	**Sett price**	**Change**	**High**	**Low**	**Est. vol.**	**Open Int.**
■ Nikkei 225							
Mar	20830.0	20820.0	+80.0	20840.0	20630.0	18,872	153,744
Jun	20600.0	20820.0	+120.0	20830.0	20600.0	1,417	22,754

Open interest figures for previous day.

† Correction. * Calculated at 15.00 GMT. ● Excluding bonds. ‡ Industrial, plus Utilities, Financial and Transportation. ◆ The DJ Ind. index theoretical day's highs and lows are the averages of the highest and lowest prices reached during the day by each stock; whereas the actual day's highs and lows (supplied by Telekurs) represent the highest and lowest values that the index has reached during the day. (The figures in brackets are previous day's). ♥ Subject to official recalculation.

■ TOKYO - MOST ACTIVE STOCKS: Tuesday, February 6, 1996

	Stocks Traded	Closing Prices	Change on day
Rhythm Watch	22.3m	616	+1
Mitsubishi Plast	15.6m	893	+72
Kanebo	10.7m	370	+60
Japan Steel Works	9.2m	375	+7
Shinwa Kaiun	8.5m	485	+80
Kyokuyo	7.9m	1,150	+40
Riken Corp	7.5m	680	-5
Central Glass	7.2m	555	+85
Tokyo Gas	5.9m	388	+6
Toyama Chemical	5.7m	580	+20

4 pm close February 6

NEW YORK STOCK EXCHANGE COMPOSITE PRICES

1995/96 High	Low	Stock	Div	Yld %	P/E	Sls 100s	High	Low	Close Quote	Ch'ge Prev. Close
22½	12⅛	AAR s	0.48	2.4	23	92	20⅛	19¾	19⅞	-⅛
48¼	35	AMP s	1.00	2.4	20	6384	41½	40	40⅞	+1
82½	53⅞	AMR				3214242	u82½	78	80¾	+2⅝
50½	36⅞	ASA	2.00	4.1	72	1085	49⅞	48⅞	49⅞	-⅛
44⅞	30⅞	Abbott	0.84	2.0	20	10644	43½	42¼	42⅝	-¼
16⅞	12	Abrams Pr	0.40	2.4	8	388	16½	16½	16½	
28½	21	ABM Ind	0.70	2.6	14	85	27½	27	27⅞	+⅛
17½	13⅛	Acptrcelin				10	15	15¼	14⅞	-¼
44⅞	21⅞	ACE Ltd	0.56	1.3	10	781	44¾	44¼	44¾	-⅛
9⅞	8⅛	ACM Gvt In x	0.90	9.4	8	87	9¾	9⅝	9⅝	
7⅞	6½	ACM GvOpp x	0.66	8.4		474	u7⅞	7⅝	7⅞	+⅛
7½	5¾	ACM Gvt Sc x	0.75	10.5		117	7⅛	7	7⅛	+⅛
9	7¼	ACM Gvt Se x	0.90	10.1		240	u9	8⅞	8⅞	
9½	7⅝	ACM Mun x	0.90	9.7		73	9¼	9⅛	9⅛	
29¼	10¼	AcmeCrx s	0.52	2.7	4	458	19¼	18⅞	19	+¼
38⅞	7⅞	Acme Elect			64	241	8½	7⅝	7¾	-⅛
34½	23⅞	Acordia	0.72	2.6	15	286	28½	28	28	-⅛
16¾	10⅛	Acusn			45	234	14¾	14½	14⅝	-¼
18⅞	15⅝	Adams Expr	0.36	1.9	0	250	19¼	19	19⅛	-⅛
30⅞	16⅛	Adrtxlic				715625	21¼	20⅞	20⅞	-¼
9⅞	5	Advest Grp	0.16	1.6	9	58	9¾	9¾	9¾	
27½	16½	Advo Inc	0.10	0.5	21	985	21⅛	20⅞	20⅞	-⅛
46¾	24	80 Aegrn	1.23	3.1	15	54	41⅞	41⅛	41⅞	+⅞
5⅞	3⅞	Aerflex			7	164	3¾	3⅝	3¾	+⅛
76¾	46⅞	Actna L s	2.76	3.7	35	3756	75	74	74¾	-⅛
59½	31⅞	Affac	0.52	1.1	14	1256	48⅞	47¾	48⅛	-⅛
28⅞	16	Ahmanson	0.88	3.6	7	8893	24⅞	23⅞	24⅞	+½
59½	43⅞	AirPrC	1.04	2.0	15	6441	52⅞	51⅞	52	-⅞
29½	18⅞	Airtrns Frt	0.30	1.2	24	2089	26¼	26	26	-⅛
36⅞	19⅞	Aktpa Inc			31	254	u36⅞	38½	36⅞	+¼
18	13¾	Airtexpo	2.00	11.3	12	13	17⅞	17⅞	17⅞	-⅛
35⅞	24	AirTch			123	19054	31	29¾	30	+⅞
21⅞	13½	Alaska Air	0.20	1.0	16	4695	20¾	20⅛	20½	+¼
26½	17⅛	Albany Int	0.40	2.2	12	892	18⅛	17½	17⅞	-⅛
20	12¼	Alcatel	0.22	1.2	15	1453	19	18⅞	18⅞	-⅛
39⅞	25⅞	AlbCo8 z	0.36	1.0	19	141	37⅛	35¾	36⅞	-⅞
36	23	AlcAlr A v	0.36	1.1	16	361	33	32¾	33	+⅛
35⅞	27¼	Alleghn s	0.52	1.5	19	2223	34¾	34⅛	34⅛	
36⅞	23⅞	AllnAl	0.60	1.9	13	2846	32¼	31½	32¼	+¾
47½	31	Allcds	0.56	1.2	51	12343	u47½	42⅛	46¾	+4⅝
60¾	29½	Alle/Brown	0.80	1.6	8	1178	51½	48⅛	51¼	+2⅞
26⅞	18	AllenAl	0.10	0.5	15	343	19⅛	18¾	19	-⅛
23	16⅞	Allegn Ludl	0.52	2.5	13	1299	21	20½	21	+⅛
30½	21½	AllegP	1.68	5.6	14	854	30	29⅝	29⅞	+⅛
39⅞	16½	Allen Gan	0.20	1.0	18	1613	21⅛	20½	20½	-⅛
34⅞	25¾	Allergan	0.48	1.4	32	1140	u34⅞	33⅞	34⅞	+⅞
23¼	15⅞	Alliance Cap	1.92	7.7	13	677	u23¼	23¼	23¼	+½
11¼	8½	Alliance Gl	0.18	1.6		66	u11¼	11¼	11¼	
34¾	29½	Alld Irish	1.11	3.3	11	22	33¼	33¼	33¼	+½
52¼	29⅞	AllStg	0.78	1.5	17	5815	u52¾	51¼	52¼	+1
10¼	9¼	Allmar	0.84	7.9		21	10⅝	10⅝	10⅝	
44⅞	23½	Allstate	0.78	1.3	12	18375	u44⅞	42¾	44⅞	+1½
33⅞	23¼	Alltel Crp	1.04	3.1	15	1970	u33⅞	32⅝	33⅞	+⅞
6⅞	4½	Allwaste			154	648	4¾	4⅝	4⅝	-⅛
27⅞	16½	AlphamaA	0.18	0.7	540	276	27¼	27	27	-⅛
37⅞	23⅞	Alumax			6	1559	32½	31⅞	32½	+¼
60¼	36⅞	Alcoa	0.90	1.6	12	5768	56	54⅝	55¾	+⅞
29⅛	18¼	Alza Cp A			32	8058	u29⅛	28⅞	28¾	-⅛
7⅞	5⅞	AmGovInc x	0.72	11.5		286	6½	6¼	6¼	
14¾	7⅞	Am Preds	0.26	2.1	19	138	13	12¼	12¼	-⅞
9⅞	4½	AmadrRl	0.03	0.9	25	5458	9½	9⅛	9⅛	-⅛
22¼	16⅞	Amcast Ind	0.56	3.0	9	200	18⅞	18⅝	18⅝	-¼
55¾	43¼	AmdahS	0.60	1.1	12	2584	54	53⅞	53¾	-⅛
47¼	36⅞	AmBrnd	2.00	4.2	15	1300	46	45⅞	46	
28½	13¾	Am Bus Prd	0.56	2.2	16	41	25	24⅞	25	
7½	6½	Am Cap Inc	0.64	9.0		87	7⅛	7⅛	7⅛	
20¼	16¾	Am Cap Bd	1.54	7.8	34	33	19¾	19⅝	19⅝	
21⅞	18	Am Cap Gr	1.36	6.3	0	46	21⅞	21½	21⅞	
44¼	31¼	AmEPw	2.40	5.5	15	2689	44½	43⅝	43¾	-⅛
46⅞	29⅞	AmExpr	0.90	2.0	14	8561	45⅝	45	45½	
39⅞	27½	AmGenl	1.24	3.4	13	3008	37⅛	36½	36¾	-⅜
6¼	4⅞	Am Gerf In x	0.62	11.6		345	5⅞	5¼	5¼	
23⅞	17½	Am Hlth Pr	2.00	8.8	11	390	23⅛	23	23	-⅛
23⅞	15¼	Am Heritge	0.72	3.1	11	25	23	22⅞	22⅞	
10⅞	6¼	AmHome	3.08	1.0	15	3804	102½	101½	102½	+½
35	27⅞	Am Hotels	0.75	2.1	16	2	3¼	3¼	3¼	
99⅞	64	AmInt	0.34	0.3	19	9406	u99⅞	95⅞	99⅞	+3¾
7⅞	5½	Am Opp Inc x	0.66	11.5		173	5⅞	5¾	5¾	
31¼	20½	Am Precsl	0.40	1.8	10	1620	22½	21⅞	22½	+⅜
9⅞	6¼	Am Real Es	0.44	4.2	6	44	9⅛	9⅛	9⅛	
30⅞	23¼	AmStor	0.56	2.1	11	2543	26⅞	26⅛	26⅞	+⅛
21½	17	Am Watr 5%	1.25	5.8		3	u21½	21	21½	+1⅛
40½	26¾	Am Watr x	1.40	3.6	14	128	38¾	38¼	38⅛	-¼
33⅞	24¾	Am Fin	1.09	3.1	14	948	35¼	31½	32⅛	-⅛
32	19⅞	AmStnd			53	2668	29½	29⅛	29½	
62⅞	39⅞	Amrtch	2.12	3.4	17	4702	u62⅞	61⅛	62⅞	+⅞
39	29½	Ameron Inc	1.28	3.4	12	105	38¼	37¾	38⅛	+½
19½	15¾	Ametek	0.24	1.4	13	648	17⅞	16⅞	17	-⅛
72⅞	56⅞	Amgen x	2.40	3.4	18	6895	71¼	70⅝	70⅞	-½
11⅞	7¾	AmpcoPit	0.10	0.9	13	41	10⅝	10⅝	10⅝	-⅛
19⅛	3¼	Amre Inc	0.12	0.6	75	1131	u19⅛	18	18¾	+½
41⅞	25¾	Amsouth	1.52	3.7	13	956	40¼	39⅝	40⅝	-⅛
54½	35⅞	Anadarko	0.30	0.6	142	1537	51⅞	50⅞	51¼	
26¼	13¼	Analog			18	6533	24⅞	24⅞	24⅞	+⅛
27½	19⅞	Angelica	0.96	4.7	16	277	20½	20⅛	20⅛	+¼
71⅞	50⅞	AnBsch	1.76	2.5	17	2649	u71⅞	69	71⅞	+2
22	16⅞	Anntex			25	70	20	19⅞	19⅞	-⅛
23¼	15⅛	Anthony In	0.44	2.0	17	163	22⅞	21¼	22⅛	+⅛
55¼	31⅞	Aon Cp	1.36	2.5	16	753	u55¼	54⅞	55	-⅛
31	22¼	Apache Crp	0.28	1.0	63	4997	27¼	26¾	26⅞	-⅛
9¼	8½	Apex Mun F	0.64	6.7		263	9½	9⅜	9½	
30¼	18⅞	APH			17	5000	23⅞	23⅛	23¾	
19½	2½	Appld Mag			15	3075	16	15⅞	15¾	
35½	22¾	Appl Pwr A	0.12	0.4	15	82	31½	31¼	31¼	-¼
20	14¼	ArchDn s	0.20	1.0	12	8318	19¼	19	19¼	+¼
52⅞	41¼	Arco Cheml	2.80	5.4	9	145	u52⅞	52	52	
50⅞	41½	Armco 4.5P	4.50	9.2		2	48¾	48⅞	48¾	
7¾	5¼	Armco			48	8338	5⅞	5¼	5⅛	
26¼	20	Armco 2.1P	2.10	8.7		7	24⅞	24¼	24¼	-⅛
64½	38⅞	ArmstW	1.44	2.4	13	1274	60½	59⅞	60½	
59¾	35¼	Arrow Elec			12	1708	44	42⅞	43⅞	+1¼
6⅛	3¼	Arrtx Grp			9	322	5⅞	5⅝	5⅝	
24⅞	16½	Arvin Ind	0.76	3.6	24	978	20⅞	20⅞	20⅞	
36⅞	23⅞	Ascmcn	0.80	2.5	8	5757	32⅞	31¼	32⅞	+⅞
30¾	20½	Ashld Coal	0.46	2.0	10	77	22½	22	22½	+⅛
38½	30½	AshOil	1.10	2.9	43	2168	37⅞	37¼	37½	-⅛
17⅞	11⅞	Asia Pac F	0.04	0.2		232	16¼	16	16	
3⅞	1⅞	Assal Inv	0.36	12.0	5	144	3	2⅞	3	+⅛
68⅞	47⅞	AT&T	1.32	2.0	75	13738	67⅞	65¼	67⅞	+2⅞
280	242	Atl Rich 2	2.80	1.0		4	270	270	270	
20⅞	15	Atlnta Gas	1.06	5.4	38	530	19⅞	19⅛	19¾	
14⅞	5½	Atlnta Sos	0.28	2.7	8	20	10¼	10	10¼	+½
20⅛	17½	Atlntic Egy	1.54	7.9	16	244	19½	19¼	19⅜	
117⅞	100½	AtlRich	5.50	4.8	13	5496	115½	114½	114½	-⅝
2½	1⅛	Atlas			1	142	1⅞	1¾	1¾	
23	16⅛	Atmos Engy	0.92	4.3	17	160	21⅞	21⅝	21⅝	-⅛
24½	14½	Augat	0.16	0.8	15	846	19⅞	19	19¼	
9⅞	7⅞	Austria Fd	0.02	0.3		103	9¼	9⅛	9⅛	
41¼	28¾	AutoDta	0.40	1.0	27	3877	40¼	39¼	40	+¼
30⅛		AutoZone			27	9035	26⅞	26½	26⅞	+⅛
18¼	14⅞	Avemco	0.68	3.2	16	433	15	14⅞	14⅞	-⅛
10¼	5⅞	Avdel	0.04	0.6	11	5744	7¼	6¾	7¼	+½
56⅞	35¼	Avnet	0.60	1.3	12	3168	46¾	44¼	46⅞	+2⅞
33⅞	54	AvonPr	2.20	2.7	20	2821	82⅞	81¼	82⅞	+⅞
19⅞	11½	Aydin Corp			17	18	15	14⅞	14⅞	
10⅞	5¾	Aztar			70	1438	8¾	8⅛	8½	-⅛

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1995/96 High	Low	Stock	Div	Yld %	P/E	Sls 100s	High	Low	Close Quote	Ch'ge Prev. Close
36½	29	BCE	2.72	7.6	19	1687	36½	35⅞	36	+¼
8⅞	6¼	BET ADR	0.27	3.2	7	58	8½	8⅜	8½	+⅛
8½	3⅞	Baimco	0.20	2.9	9	531	7⅛	6¾	7	+⅛
18⅞	13¾	Baker Fent	0.40	2.2	153	126	u18⅞	18½	18⅞	+⅛
26	16¼	BakerH s	0.48	1.9	33	10631	26⅞	24¾	24¾	-⅛
26½	17¼	Baldor Elc	0.36	1.8	18	251	20½	20⅛	20¼	-⅜
38¾	25¾	BallCo	0.60	2.1	264	1675	29¼	28¾	29⅛	+⅜
18⅛	10½	BlkMid	0.08	0.6	20	1279	15⅞	15⅛	15⅞	+⅝
15⅞	6	Bally				45	10¼	15	15¼	-⅛
29⅞	22	BallGE	1.56	5.4	14	2805	28⅞	28¼	28⅞	
40½	25½	BncOne	1.36	3.6	11	7610	38	38¼	37⅞	-⅞
37¼	23½	BancoBil V	1.13	3.1	12	31	36⅞	36⅛	36⅞	+¼
12¼	9¾	BCH	0.36	3.4	7	20	10⅝	10⅝	10⅝	
37⅛	24⅞	BcpHawaii	1.12	3.2	12	1028	35½	35	35⅛	+⅛
66⅞	49	Bancrp	0.80	1.5	13	397	52½	50½	52	+1¼
69¼	39½	BankAm	1.84	2.7	10	14018	u69¼	68¼	68⅞	+¼
84½	74	Bank Bost	5.48	6.6		4	83	82	83	
50½	25½	BkBrkn s	1.48	3.3	9	7802	45¾	44⅞	45⅞	-⅛
47½	40¾	Bk Boston P	3.00	6.5		8	46¼	46	46¼	
51¼	28½	BankNY	1.60	3.1	11	4990	51⅞	50½	51⅞	+½
51	42	BankAm A	3.25	6.5		50	50⅝	49¾	49¾	-1⅛
85⅞	71½	BankAm B	6.00	6.5		8	91⅞	91⅝	91⅝	-⅜
72	49¾	BnkTst	4.00	6.1	12	6254	65½	64¼	65⅜	-⅛
50¼	36	Bclays	1.54	3.1	10	12	49½	49	49⅛	+⅛
37⅞	25½	Bard (C R)	0.64	1.8	23	2456	37	35⅛	36	-1⅛
45¼	35	Barnes Grp	1.60	3.9	9	107	41⅞	40⅞	41⅞	+⅞
62¼	38¼	BarrMk	1.85	3.1	11	2090	60	59½	59⅞	+¼
32¼	19¼	BrckUd	0.12	0.4	41	24670	u32¼	31¼	32¼	+¼
21⅞	7⅞	BarryRGi			33	266	19⅛	17⅞	19	+1¼
12⅞	7⅞	BaxWr	0.05	0.4	162	6297	11½	11⅛	11⅞	
44½	30⅞	Bausch	1.04	2.6	42	1800	40	39⅞	39⅞	
46¼	26¾	Baxter	1.13	2.7	184	7349	42½	41½	42⅞	+1½
29⅞	22¼	Bay St Gas	1.50	5.2	14	66	29	28⅞	28⅞	-⅛
48⅞	27	BBN			10	2346	31¼	29½	30¼	+⅝
22½	19	Bd Tr 1838	1.64	7.3		2	u22½	22½	22½	
8⅞	6⅞	BEA IncFd x	0.72	8.6		209	u8⅛	8¼	8⅛	
9¼	8½	Bea Strat x	0.81	9.0		66	9	8⅞	9	
23⅞	15⅞	Bear Stns	0.60	2.6	8	2932	23	22⅞	23	+⅞
44½	30¼	BearSPIA	2.75	6.3		4	43¼	43¼	43¼	
29⅞	12¼	Bearings	0.56	2.0	16	137	27½	26¾	27⅞	+½
35⅞	26½	Beckman In	0.14	1.3	20	325	35	34½	34¾	-⅛

1995/96 High	Low	Stock	Div	Yld %	P/E	Sls 100s	High	Low	Close Quote	Ch'ge Prev. Close
87½	43	BectnD	0.92	1.1	22	1915	87¼	86	86⅛	-1⅛
7⅞	6⅛	BelrdProp	0.42	5.8	22	21	u7⅞	7½	7½	
71¼	48⅞	BellAtl	2.80	4.0	16	5417	70⅞	69¾	70¾	+¼
25⅞	17¾	Bell In	0.40	1.7	10	184	22⅞	22⅞	22⅞	+⅜
45¾	27	BellSth	2.68	6.6	27	6260	43⅞	42¾	43⅞	+⅞
36¾	27¾	Belo A	0.32	0.8	21	1298	35¾	35¼	35¾	
31¼	23	Bemis	0.72	2.3	19	532	u31¼	30¼	31	+½
67	49½	Bendix 4.3P	4.30	6.5		2	66	66	66	
55½	37	Benef	1.88	3.9	17	2018	48¼	48	48½	+⅝
24½	16	Benetton A	0.31	1.3	14	24	24	23¾	23¾	-⅛
⅞	⅜	Benguet B	0.04	4.9	40	626	½	¼	½	+⅛
29⅛	19¼	BergBr x	0.48	1.8	16	1499	27	26½	26⅞	+⅛
336000	100	BerkH			75	1	317000	317000	317000	
10⅞	8¼	Berry Petr	0.40	4.1	21	27	9¼	9⅛	9¼	
33⅞	12	Best Buy			12	1823	18¼	15⅞	15⅞	-¼
28¼	24⅞	Beth St 2	2.50	9.0		19	28	27¼	27¼	-⅛
55¼	48⅞	Bethlhm Pf	5.00	9.1		59	54¾	54⅞	54⅞	+⅞
19⅛	12⅞	BethSt	0.40	2.5	12	5513	16⅞	15⅞	15⅞	+⅛
46⅞	38¼	Betz L x	1.48	3.4	17	371	43	42¼	43	+1
16½	9¼	BevEnt			15	2031	11¼	11⅛	11¼	+⅛
22½	12⅞	Biocraft	0.10	0.5	69	1193	20⅞	20⅛	20⅛	-¼
22¼	14	Birmingm S s	0.40	2.4	13	563	16⅞	16⅞	16⅞	+⅛
38½	23	BlDeck	0.40	1.2	19	3024	34⅞	33⅞	34¼	+½
26⅛	19¾	Black H PL	1.34	5.3	14	59	25⅛	24½	25⅛	+½
9⅛	7¼	BlckrckAdv	0.82	6.9		158	9	8⅞	9	+⅛
7¼	6¼	Blckrckinc	0.56	8.5		1127	6⅞	6½	6⅝	+⅛
9⅞	8¼	BlckrckTgt	0.57	6.4		1066	9	8¾	9	+⅛
48⅞	31½	Block	1.28	3.4	36	4060	37⅞	37	37½	+½
31⅛	25	Blount A	0.44	1.5	11	310	29⅛	29	29¼	
8⅞	6	Blue Chip	0.16	2.0		611	8⅛	7⅞	8⅛	
25⅛	7	77 BMC Ind	0.05	0.2	31	1067	u25⅛	24¼	24¾	+½
81⅞	44⅞	Boeing	1.00	1.2		6912731	80	78⅞	80	+½
47½	26¼	BolseC	0.60	1.5	6	3920	39¾	38¾	38⅞	+⅞
10⅞	4¾	Bombay Co			13	706	5½	5⅛	5¼	-⅛
25⅞	12¼	Bordn Chm x	6.56	47.7	3	575	13⅞	13½	13¼	-⅛
28⅞	19¾	Bostn Coll	1.50	6.7	26	10	22¼	22	22¼	+⅛
51⅞	16⅞	BosSci			149	2833	49⅞	48⅞	49⅞	+⅞
54⅞	28⅞	Bowatr	0.60	1.5	7	4014	40¼	39½	40	+⅛
30¼	17¾	Brazil Fnd	1.34	5.3		1567	25⅞	24⅞	25¼	+⅛
38⅛	29⅞	BRE Prop	2.52	8.7	17	232	37⅞	37⅞	37⅞	-⅛
23	16	BreadTech	0.20	1.2	7	495	17½	17	17⅛	-⅛
44¼	32¼	BrigSt	1.04	2.3	16	813	u44¾	43¾	44⅞	+1½
20⅞	11⅞	Brinkerint			24	3680	13½	12⅞	13⅜	+½
89⅛	57¾	BrlnSq	3.00	3.4	21	7323	89	87½	88½	-½
80⅞	58¼	Br Air	2.08	2.7	14	222	78⅛	77½	77¾	+⅛
50½	34½	Brit Gas	2.43	6.5	27	615	37⅞	37	37⅛	-⅛
103⅞	75⅞	BP	2.55	2.5	17	2380	100½	99¾	100⅜	+⅛
19	13	BP Prudhoe	1.54	10.0	9	222	15⅞	15¼	15½	
30¼	22⅞	BStwel	1.27	4.7	4	833	27	26⅞	27	-⅛
65½	32½	BT	2.93	5.3	11	340	56¾	55¼	55⅝	+½
29⅞	22	BtlpnU	1.42	5.1	14	198	28¼	27⅞	28¼	+⅛
33⅞	12½	BrunsGp	1.00	7.5	445	194	13½	13¼	13⅜	
12⅛	6⅞	BrunSh	0.32	3.5	14	21	9¼	8⅞	8⅞	-⅛
40¼	29⅞	BrnFrnB	1.04	2.8	18	166	37⅞	36¾	37¼	+½
40⅞	27⅛	BrFerr	0.68	2.3	15	11041	29⅞	28⅞	29¼	
4¼	3¼	BRT			11	48	4⅛	4¼	4¼	-⅛
24	16⅞	Bmwk	0.50	2.2	17	898	23¼	22⅞	23	-⅛
23⅞	14½	Brush Well	0.40	2.1	15	290	19¼	19	19¼	+⅛
38½	30	Buckeye Pl	2.80	7.3	9	126	38⅞	37½	38¼	+⅞
14⅞	8½	Burl Coat			36	254	10⅛	9⅞	10⅛	+⅛
84⅞	70½	BurlN	1.20	1.4	50	5340	84⅞	82⅞	83	+⅛
42¼	33⅞	Burlin Resc	0.55	1.4	17	4573	38½	38¼	38¼	-⅛
14½	9½	Burmah Pc	1.00	9.4	14	186	10⅞	10½	10⅝	+⅛
32¼	23⅞	BushBoake			18	18	29⅞	29⅞	29⅞	-⅜

- C -

1995/96 High	Low	Stock	Div	Yld %	P/E	Sls 100s	High	Low	Close Quote	Ch'ge Prev. Close
33⅞	19	CBI	0.48	1.5	27	10	32⅞	32¼	32¼	
31½	22⅞	CMS En x	0.96	3.1	13	1357	u31½	30⅞	31⅞	+⅛
123¼	64¾	CNA Fn			10	758	114	110¼	114	+3¼
74½	51⅞	CPC	1.52	2.1	20	1729	74⅛	73⅛	73½	+⅛
22⅛	13⅞	CTI Corp	0.56	3.7	12	534	15⅞	15	15⅛	+⅛
47⅞	34⅞	CSX	1.04	2.2	15	3842	u47⅞	45¾	46⅞	+⅛
38⅞	27⅞	CTS Corp	0.60	1.6	11	45	38½	37⅞	38	-½
22¼	16¼	Cable&Wire	0.48	2.2	22	1568	21⅛	20¼	21	-⅛
87¼	37⅞	Cablevisn			28	2723	81¼	79	80⅝	+⅜
60⅞	28	CabotC	0.72	1.2	12	466	60	58⅞	59⅞	+1½
17

4 pm close February 6

NYSE COMPOSITE PRICES

Continued from previous page

1995/96 High	Low	Stock	Div	Yld %	P/E	Sls 100s	High	Low	Close Quote	Chng Prev. Close
18⅛	9	SFeGd	0.05	0.3	59	8293	u18⅛	17½	17⅞	
37⅞	30½	SFePPipe x	3.00	8.0	18	36	37¼	37½	37⅝	-⅛
34½	24¼	SaraLee	0.76	2.2	19	11249	u34½	32⅞	34⅜	+1⅜
60¼	38⅝	SBC Cm	1.65	2.8	19	6004	59	57⅞	59	-⅞
28⅝	20½	Scana Corp	1.44	5.1	17	929	28⅛	27¾	28⅛	+¼
11¼	5⅞	SchwkA x	0.26	3.2	20	18	8¼	8	8⅛	
50¼	37¼	SchorrRP			20	894	39⅞	39	39	-½
60¾	35½	SchrPl x	1.16	2.1	23	13384	56¾	55	56½	+⅞
72	50⅛	Schlmb	1.50	2.1	26	4141	70	69⅛	70	+¼
29	11¼	Schwab(C) x	0.16	0.7	25	2850	24⅞	24¼	24½	+½
27½	20⅜	SchMaud				410	26¾	26⅜	26⅝	-⅛
24⅞	11⅞	SciAtl	0.06	0.4	38	3581	17½	17	17⅛	-⅜
20	15⅛	Scotman	0.10	0.6	11	151	17¼	17	17⅛	
49⅛	26⅞	Scripps	0.52	1.2	25	1498	u43⅛	41⅝	42⅞	-1
21½	13⅛	ScuddrNAsF	0.02	0.1		200	17⅞	17¾	17⅞	+⅛
11⅞	8⅝	ScuddrNEuF	0.16	1.4		822	11⅝	11¼	11⅜	
20	13⅜	SeaCnB	0.70	4.2	1	43	16¾	16⅝	16⅝	-¼
18¾	14⅝	SeaC1.4625	1.46	9.5		5	15⅜	15⅜	15⅜	-⅛
61⅜	23⅝	S'gate			11	9752	u61⅜	59⅝	61⅛	+⅞
39½	25⅞	Seagrm	0.60	1.7	24	5148	35¾	35¼	35½	-¼
22½	15¼	Seagull En			950	893	19⅜	18⅞	19	-⅜
32⅝	18	Sealed Air			26	810	u32⅝	31⅞	32⅝	+1⅛
43⅝	30⅜	SearsR	0.92	2.2	11	8707	42⅞	41⅝	42¾	+1
20½	18⅞	SecCapGBl x	1.24	6.4	22	594	19⅝	19¼	19½	
12⅞	10⅜	Seligm Sel	0.84	6.5		59	u12⅞	12¾	12⅞	+⅛
38¼	13⅝	Sensormat x	0.22	1.3	15	7267	16¾	15⅞	16⅝	+⅜
34¼	21⅞	SequaA	0.60	1.9	14	88	32¼	32	32	-¼
41⅝	23	SequaB	0.50	1.2	21	5	40⅝	40⅝	40⅝	
44¼	26¼	ServCp	0.44	1.0	25	3157	43⅛	42	42⅞	
33½	21½	SvMstr	0.96	2.9	15	637	u33½	32¼	33	+½
7⅞	4⅛	ServMerch			9	2705	4⅞	4⅝	4⅞	+⅛
57½	22½	SGSThm			9	4085	38¾	37¼	37¾	-¾
17⅜	11⅞	Shaw Ind	0.30	2.4	27	5608	12⅞	12⅛	12¾	+¼
13⅝	7⅝	Shelby Wil x	0.26	2.4	15	42	12	11¾	11¾	-¼
83⅛	64¼	ShellTr	2.88	3.6	19	435	80¾	79⅞	80⅝	+½
42⅞	32	SherW	0.64	1.5	18	1191	42½	42¼	42⅜	-⅛
13½	7⅞	Shoneys			13	398	8¼	8	8¼	+¼
29⅞	13½	Showboat	0.10	0.4	25	213	25½	25¼	25¼	+⅜
24⅛	18½	Sierra Pac	1.12	4.7	12	244	23¾	23⅝	23¾	+⅛
8⅛	5¼	SignalApp			1	z100	7½	7½	7½	+⅛
36⅝	17⅝	Signet Bnk	0.80	3.2	10	1538	24⅝	24⅜	24⅝	+¼
45⅝	21¼	SiliconGr			23	14359	30⅝	29¾	30¼	+1
11⅝	8	Sizeler	1.12	13.8	26	572	8¼	8⅛	8⅛	
7⅛	3	Sizzler	0.16	4.9	36	1161	3⅜	3¼	3¼	-⅛
22	16½	Skyline	0.48	2.3	13	311	21⅜	21	21⅛	
9⅞	4⅞	SL Inds	0.06	0.8	11	51	7½	7⅜	7⅜	
3⅞	⅜	SmithCoro	0.10	80.0	0	760	¼	⅛	⅛	
23⅞	11	Southbn			20	903	23⅛	22⅞	23⅛	
56	35¼	SKBchA	1.13	2.0	29	191	55⅛	54¾	55⅛	-⅛
56⅜	33½	SKBEqU	1.33	2.4	23	4887	55¾	55⅛	55⅝	-⅛
31	18⅛	Smiths Fd	0.60	2.4	15	1454	25¼	24¼	25	-⅜
24½	17¼	Smucker J	0.52	2.6	17	48	20⅜	20⅛	20¼	
47¼	31	SnpOnT	1.08	2.5	15	2026	43½	42¾	43¼	+⅛
15⅜	9¾	Snyder Oil	0.26	2.5	15	1120	10½	10⅜	10⅜	
49⅝	22⅛	Solectron			25	3196	49⅛	47⅝	49	-⅝
36¼	26	Sonat	1.08	3.2	15	4787	35¼	34	34	-1
28¾	21½	Sonoco	0.60	2.2	16	730	27	26⅜	27	+¾
66¼	42½	Sony	0.42	0.7	7	550	62¾	61⅛	62½	+1⅞
15⅝	10½	Sotheby's	0.24	1.6	36	965	15	14¾	14⅞	-⅛

- X - Y - Z -

Stock	Div	Yld %	P/E	Sls 100s	High	Low	Close Quote	Chng Prev. Close
Xerox	3.48	2.7	16	12868	133	128	130⅞	+5⅛
Xtra Corp	0.72	1.6	14	797	45⅛	43	45⅛	+2⅛
Yankee Egy	1.26	5.3	16	64	24⅛	23⅞	23⅞	-¼
York Int	0.24	0.5	17	1339	45⅞	45⅜	45¾	-⅛
Zapata	0.14	4.1	24	49	3½	3⅜	3⅜	-⅛
ZenNtl			4	286	6⅞	6¾	6¾	
Zenith Nat x	1.00	4.3	33	20	23⅜	23¼	23¼	+⅛
Zenix Inc	0.72	10.3		423	u7	6⅞	7	
Zero x	0.44	2.6	17	222	17⅛	17	17⅛	
Zurn Ind	0.40	1.8	17	199	22⅝	22⅜	22½	+⅛
Zweig Fund	1.12	10.2		233	11⅛	11	11	
Zweig Totl	0.84	9.3		1082	u9	8¾	9	+⅛

Prices supplied by Telekurs

Yearly highs and lows for NYSE reflect the period from Jan 1 1995. Unless otherwise noted, rates of dividend are annual disbursements based on the latest declaration. Sales figures are unofficial. new yearly low. P/E price-earnings ratio. sls-sales. u-new yearly high. x-ex dividend or ex-rights. yld-yield. z-sales in full. # Dealings suspended. Owing to technical problems, some NASDAQ prices in yesterday's FT were incorrect.

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AMEX COMPOSITE PRICES

4 pm close February 6

NASDAQ NATIONAL MARKET

4 pm close February 6

AMERICA

Technology stocks stage midday rally

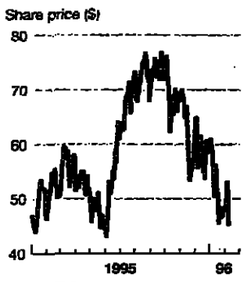
Wall Street

Technology shares continued Monday's rally in midday trading yesterday, helping to put US share prices on course for another record finish, *writes Lisa Bransten in New York.*

At 1 pm, the Dow Jones Industrial Average was up 31.79 at 5,439.38. The Standard & Poor's 500 was 2.50 lower at 643.93 and the American Stock Exchange composite lost 0.96 at 556.23. NYSE volume was 271m shares.

Equities received some support from strength in bonds, which reversed Monday's losses. Near midday, the benchmark 30-year Treasury was up nearly half a point, pushing the yield down to 6.124 per cent.

Broderbund



Source: FT Extel

The market shrugged off news that Mr Charles Clough, chief investment strategist at Merrill Lynch, had lowered his recommended allocation on equities to 45 per cent from 50 per cent.

Advancing technology issues helped the Nasdaq composite to add 5.75 at 1,089.09. The Pacific Stock Exchange technology index rose 0.9 per cent.

Rising high-technology shares included America Online, up $2⅛ at $46⅛, Applied Materials, $1 stronger at $44, and Cirrus Logic, which added $1½ at $25⅞.

IBM, which is a component of the Dow, continued the upward path on which it embarked last month after reporting strong full-year earnings. Big Blue added $1¾, bringing the shares to a 52-week high of $114¼. Since January 15 the shares have jumped $31⅛ or 37 per cent.

One exception to yesterday's strength in technology shares was Broderbund Software, which tumbled $8¾ or 16 per cent to $44¾. After the market closed on Monday, the maker of educational software said that it expected second-quarter profits to fall below the 50 cents a share it reported for the period last year. Analysts were expecting profits of 58 cents a share.

Strength in cyclical issues led the Dow to outperform other, more broadly based indices. The Morgan Stanley index of cyclical shares added 0.7 per cent, while the counterpart index of consumer shares was 0.1 per cent higher.

In the Dow, Goodyear Tire & Rubber rose $1½ to $48⅛, Union Carbide was up $1 at $43⅞ and Caterpillar added $¾ at $63½.

Allied Signal, however, slipped $⅜ to $51⅝ after reporting operating earnings of 83 cents a share, a cent short of analysts' estimates.

Time Warner advanced $1¾ or 4 per cent to $43⅛ after posting fourth-quarter earnings of 1 cent a share.

Analysts had expected the communications giant to break even.

Canada

Toronto was flat at midsession as the gold bullion price slipped, but the market continued to find support in a seasonal influx of retirement fund money. The TSE 300 composite index was 1.66 weaker by noon at 5,031.66 in hefty volume of 51.5m shares.

Among the high technology stocks, Cognos jumped C$2¼ to C$60¼ as it formed an alliance with IBM to integrate its Impromptu database reporting tool into the US group's data storage products.

Bema Gold slipped C$⅛ to C$5 as investors took profits, while TVX Gold gave up C$⅛ to C$14¾.

Buenos Aires recovers

Buenos Aires staged a partial recovery after Monday's 4 per cent loss. By midsession the blue chip Merval index was 4.98 points better at 539.92.

The market fell sharply at the start of the week on worries about the domestic political situation. Analysts said that investors were nervous ahead of a meeting of congress today which would debate government measures to curb public spending and modify taxes.

MEXICO CITY, closed on Monday for a public holiday, lost 44.20 or 1.4 per cent to 3,057.72, with many investors selling Telmex after the utility was downgraded by a US broker on Monday. Telmex ADRs fell more than 3 per cent in New York on Monday as Morgan Stanley lowered its rating to neutral from outperform.

SAO PAULO was stronger at midday, with the Bovespa index 441 points ahead at 53,771. Smith Barney said yesterday that it had raised its rating on the market to outperform from neutral.

S African golds drift lower

Johannesburg drifted lower in moderate dealings as gold bullion struggled to maintain its price level, and base metals tumbled.

The overall index fell 28.3 to 6,921.9, industrials shed 7.7 to 8,538.7 and golds gave up 13.4 to 1,867.5, although share prices picked up from their lows late in the session as buyers entered the market on optimism that the bullion price would resume its rise.

Rustenburg Platinum managed an improvement of 50 cents at R82 in spite of a decline of $1.50 in the platinum price to around $427.70 in late afternoon trading.

Samancor, the ferrochrome producer, fell R3 to R50 after posting a 105 per cent rise in first-half attributable profits on Monday but warning of a second-half profits decline.

EUROPE

Oils weak in Paris as Goldman adds downgrade

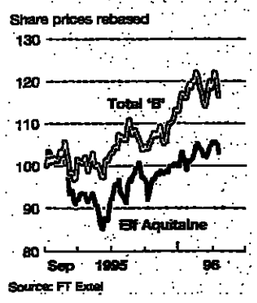
Oil majors were active in PARIS as Goldman Sachs followed J.P. Morgan's downgrade last week of Total and, in addition, deleted Elf Aquitaine from its list of recommended stocks. Total lost FFr6.60 to FFr340.60 and Elf FFr7.30 to FFr372.80, as the CAC-40 index made 2.88 to 1,988.47.

Goldman reduced its exposure to Total following the group's preliminary 1995 results announcement last week. The US investment bank said that it had reduced its estimates for net income in 1996 and 1997 to FFr4.7bn from FFr5bn and to FFr5.1bn from FFr5.9bn.

J.P. Morgan said that it was concerned about the outlook for the company's chemicals division. "Slower GDP growth in Europe in 1996, particularly in France, could have a significant negative influence on this business," the broker remarked. "Nevertheless, we believe that Total's long term strategy of expanding its chemicals operations in potentially higher growth markets will bear fruit, but that the near term outlook is more difficult."

But Goldman went further by downgrading Elf, based on a pessimistic view of chemicals earnings in 1996. "Against a background of flat oil prices and weak refining margins,"

French oil companies



Source: FT Extel

said Goldman, "Elf's net income is forecast to grow at a rate of less than 4 per cent over the next two years." J.P. Morgan forecast net income of FFr5.1bn, in line with its previous forecast, when the company reported its 1995 earnings on February 21; this compared with a forecast FFr5.6bn from Goldman, down from a previous FFr6.2bn.

Eurotunnel rose 50 centimes to FFr6.35 after it reported that it had doubled car traffic last month compared with the same 1995 period.

FRANKFURT enjoyed a second day of Fresenius *phantasie*, the pref shares rising another DM21.50 to DM166 for a two-day gain of DM36 or 27.7 per cent on its dialysis equipment merger deal with W.R. Grace, of the US.

At this level the shares, although priced at a discount of DM16.50 to the relatively illiquid ordinary shares, were on a 1995 estimated p/e of 32 after more than trebling in under two years. Analysts were beginning to do their sums after an apparently unproductive conference with the company yesterday, and the conflict between caution and euphoria remained.

Hoechst, which did its big US deal last year, and bought a lot of value for shareholders, rose DM11.10 to DM446.80 but, here, there was a suggestion of short covering. The Dax index, moving sedately better for most of the day, accelerated late to close with a gain of 21.14 at an Ibis-indicated 2,437.98.

Meanwhile, Degussa, ambitious like Hoechst to expand its position in pharmaceuticals, combined the announcement of a linked capital increase with disappointing first-quarter figures. It paid the price, falling DM9 to DM543.50.

AMSTERDAM enjoyed a healthier session than the one which started the week, regained the 500 level and closed up 4.36 at 502.73.

Philips made Fl 1.80 to Fl 68.80 as investors responded to Monday's news that its troubled German subsidiary, Grundig, was to be restructured, and that the Dutch parent would no longer be responsible for any losses that Grundig might make from 1997 onwards. Analysts suggested that this might be a sign that Philips could be preparing to sell its 32 per cent stake.

In the publishing sector, VNU added 70 cents at Fl 25.30 following its 10-for-one share split.

There was less cheer for Fokker, the current speculative market play, which lost 40 cents or 8.5 per cent to Fl 4.30 after the company warned that negotiations with potential partners did not include a bid for either the listed shares or bonds. The company elaborated that interest from potential buyers, said to include Bombardier, of Canada, and Samsung Aerospace, of South Korea, was limited to its subsidiaries or their activities.

ZURICH recouped almost two-thirds of Monday's sharp fall as firmer bond futures combined with a strengthening dollar. The SMI index picked up 32.1 to 3,253.8.

Among financials, the recovering Swiss Re and UBS were among the day's best performing blue chips. UBS bearers rose SFr24 to SFr1,271 and Swiss Re SFr22 to SFr1,216.

Adia, the temporary employment agency, jumped SFr12 to SFr233 on recent recommendations and active buying by one private bank. A SFr21 rise in Sulzer to SFr787 was attributed to buy recommendations and a warrant issue. Among second liners, Esec, which makes specialised equipment for the semiconductor industry, rose SFr100 to SFr5,200 in further volatile trade.

MILAN finished little changed, tracking bonds in their recovery from earlier lows. The Comit index fell 1.76 to 625.08, while the real-time Mibtel index picked up from a low of 9,931 to finish just 4 higher at 9,993.

Rinascente, Italy's largest retailer, was L155 higher at L10,850 on rumours that the Agnelli family finance company Ifil planned to sell its holding for a possible purchase of France's Eridania Beghin-Say. Late in the day Mr Umberto Agnelli, president of Ifil, denied talk of a sell-off.

Telecommunications stocks continued to weaken after their recent strong run. Stet lost L103 to L4,951 and Telecom Italia was L42 down at L2,822.

STOCKHOLM featured a 19 per cent gain in forestries as the Affärsvärlden General index rose 12.0 to 1,788.6, but Autoliv, the car safety equipment maker, dived SKr26 or more than 7 per cent to SKr314 on indications of lower growth in airbags this year.

BRUSSELS saw steelmaker Clabecq drop a further BFr62 or 31 per cent to BFr180 on doubts over its capacity for survival. Banks reversed early gains and the Bel 20 index eased 1.48 to 1,684.51.

Written and edited by William Cochrane, Michael Morgan and John Pitt

FT-SE Actuaries Share Indices

Feb 6 — THE EUROPEAN SERIES

Hourly changes	Open	10.30	11.00	12.00	13.00	14.00	15.00	Close
FT-SE Eurotrack 100	1548.63	1549.17	1549.90	1549.22	1549.38	1550.05	1550.42	1551.45
FT-SE Eurotrack 200	1662.81	1662.89	1663.78	1662.07	1663.12	1663.44	1663.05	1662.29

	Feb 5	Feb 2	Feb 1	Jan 31	Jan 30
FT-SE Eurotrack 100	1548.16	1568.84	1570.74	1559.54	1549.40
FT-SE Eurotrack 200	1658.34	1675.89	1670.82	1662.09	1656.45

Base 1000 29/10/90; Highs/lows: 100 - 1551.59; 200 - 1664.64 Lows/lows: 100 - 1546.38 200 - 1661.64 † Partial

ASIA PACIFIC

Nikkei ahead as Taipei drops 1.4% on China threat

Tokyo

Speculative purchases and technical activity balanced earlier losses caused by the yen's rise against the dollar, and the Nikkei average turned up for the first time in three trading days, *writes Emiko Terazono in Tokyo.*

The 225-share index put on 97.77 at 20,751.15 after moving between 20,555.61 and 20,767.79. The dollar's decline below the Y106 level prompted profit-taking, while foreigners, discouraged by mounting uncertainty over the housing loan bailout, turned net sellers.

Volume totalled 600m shares, against 516m. The Topix index of all first section stocks rose 1.89 to 1,602.89 and the Nikkei 300 by 0.60 to 299.05.

In London the ISE/Nikkei 50 index was up 0.54 at 1,400.63.

The investment trust unit of Daiwa Securities went for a newly launched investment trust fund linked to index futures, prompting arbitrage buying. Trading of speculative stocks, meanwhile, led activity as the issues were bought by individual investors and brokerage dealers.

Overseas investors, who had been the main buyers of Japanese shares, took profits on large-capital steels and shipbuilders, which had led the market's recent rally. Nippon Steel relinquished Y7 at Y358 and Mitsubishi Heavy Industries Y6 at Y840.

Financials, which led the Nikkei's decline on Monday due to worries over the government's bailout scheme for the ailing housing loan companies, were mixed. Fuji Bank rose Y60 to Y2,370 but Sumitomo Bank fell Y10 to Y2,000 and Daiwa Bank lost Y16 to Y762. Brokers were also mixed, with Nikko Securities up Y10 to Y1,280 and Nomura Securities retreating Y30 to Y2,260.

Mitsubishi Plastics, a resin processor, forged ahead Y72 to Y693 on rumours of a development in integrated circuit cards. Kanebo, a cosmetics maker, jumped Y80 to Y370 on reports that it will enter the semiconductor business with its developed integrated circuits for personal computers and video games.

Speculative favourites were traded actively. Rhythm Watch, the most active issue of the day, rose Y1 to Y616 and Kyokuyo put on Y40 at Y1,150.

Some high-technology stocks rose in spite of the weaker dollar. Fujitsu by Y10 to Y1,110 and Sony by Y80 to Y6,500. Toshiba, however, lost Y5 to Y827 and NEC Y20 to Y1,260.

In Osaka, the OSE average slipped 53.46 to 22,316.94 in volume of 111.8m shares.

Roundup

Worries about a possible military threat from mainland China left TAIPEI down another 1.4 per cent. The weighted index dropped 69.03 to 4,690.22.

The market had been frightened by a report in a Hong Kong newspaper that China was planning a military exercise involving 400,000 troops on land opposite Taiwan.

While most analysts did not expect an invasion, any build-up of force by the Chinese in the past had been a cue for heavy selling. The market was also anxious ahead of the presidential election on March 23.

BOMBAY turned sharply lower after an untrue rumour, that the opposition Bharatiya Janata party leader L.K. Advani had been assassinated, gave speculators the opportunity to take profits following the market's 14.4 per cent surge during the previous six sessions.

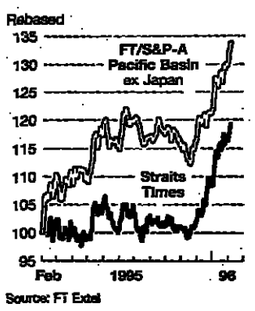
The BSE-300 index finished 78.43 down at 3,154.89 as Reliance fell Rs17.50 to Rs202.

HONG KONG closed off the day's low as a late rally in blue chips, rumoured to be the object of covered warrant issues, erased some of the effects of earlier profit-taking. The Hang Seng index ended 92.74 down at 11,391.38. Turnover shrank to HK$7.1bn.

Among shares that climbed late in the day, Hutchison finished 50 cents up at HK$52.25, Swire A jumped HK$1.25 to HK$70 and Hang Seng Bank rose HK$1 to HK$73.

Locally listed China-incorporated companies bucked the trend on rotational buying of laggards, the H share index surging 5.5 per cent.

Singapore



Source: FT Extel

SINGAPORE ended a little firmer, but well below early record-breaking highs as dealers took some profits from the top of the recent bull run.

The Straits Times Industrial index finished 9.70 higher at 2,493.71, having peaked in early trade at a record intra-day level of 2,503.96, breaching 2,500 for the first time.

KUALA LUMPUR failed to take heart at an unexpectedly modest November trade deficit, although a late rally nudged the composite index into positive territory to close 2.91 up at 1,082.79.

SEOUL was pulled down by declines in Samsung Electronics and profit-taking in banking shares, and the composite index finished 9.47 weaker at 881.21 in relatively active volume of 30.2m shares.

Samsung Electronics lost Won7,000 to Won135,000 on rumours that Merrill Lynch had reported softening demand for semiconductors.

SYDNEY was slightly lower, led by a decline in gold stocks. The All Ordinaries index eased 2.0 to 2,269.7. Volume was 247.6m shares worth A$539.1m.

Dealers said domestic investors were withdrawing from market activity ahead of the general election on March 2.

The gold shares index fell 30.5 to 2,237.5, with Newcrest Mining retreating 17 cents to A$6.38. Gold Mines of Kalgoorlie 4 cents to A$1.53 and PosGold 6 cents to A$3.45.

The banking sector weakened after recent gains on speculation that the Conservative opposition party might win the general election.

Coca Cola-Amatil shed 24 cents to A$12.50 ahead of today's 1995 results.

MANILA was affected by the overnight fall in Philippine Long Distance Telephone on Wall Street. As a consequence the composite index lost 4.21 at 2,915.03, in volume of 1.7bn shares worth 2.1bn pesos.

BANGKOK was modestly firmer in spite of a lack of foreign interest. The SET index gained 4.06 at 1,415.04 in turnover of Bt8.4bn.

FT/S&P ACTUARIES WORLD INDICES

The FT/S&P Actuaries World Indices are owned by FT-SE International Limited, Goldman, Sachs & Co. and Standard & Poor's. The indices are compiled by FT-SE International and Goldman Sachs in conjunction with the Faculty of Actuaries and the Institute of Actuaries. NatWest Securities Ltd. was a co-founder of the indices.

NATIONAL AND REGIONAL MARKETS (Figures in parentheses show number of lines of stock)	MONDAY FEBRUARY 5 1996: US Dollar Index	Day's Change %	Pound Sterling Index	Yen Index	DM Index	Local Currency Index	Local % chg on day	Gross Div. Yield	FRIDAY FEBRUARY 2 1996: US Dollar Index	Pound Sterling Index	Yen Index	DM Index	Local Currency Index	DOLLAR INDEX: 52 week High	52 week Low	Year ago (approx)
Australia (81)	197.61	−0.8	191.13	131.31	150.95	173.90	−0.9	3.85	199.13	194.37	134.26	153.96	175.45	199.13	157.95	161.80
Austria (26)	188.08	0.4	181.92	124.98	143.67	143.49	−0.8	1.50	187.32	182.85	126.32	144.83	144.65	199.28	167.48	169.21
Belgium (34)	215.49	0.1	208.43	143.19	164.61	160.80	−1.1	3.26	215.35	210.21	145.22	166.50	162.35	215.81	166.86	168.63
Brazil (28)	167.08	−1.9	161.60	111.02	127.62	300.83	−1.9	1.58	170.25	166.19	114.81	131.63	308.55	170.25	86.08	148.24
Canada (101)	156.69	−0.9	151.55	104.11	119.69	156.21	−0.1	2.41	157.18	153.42	105.99	121.52	156.38	157.18	125.64	126.47
Denmark (33)	300.01	0.3	290.18	199.35	229.17	232.03	−0.9	1.41	299.20	292.06	201.78	231.33	234.05	302.74	252.41	258.21
Finland (24)	188.08	0.3	179.99	123.65	142.14	176.58	−0.5	1.80	185.52	181.10	125.11	143.44	177.54	278.11	171.13	188.94
France (99)	185.37	−0.5	179.30	123.18	141.60	147.00	−1.6	3.10	186.38	181.93	125.68	144.10	149.36	191.17	161.53	161.62
Germany (60)	170.24	−0.1	164.66	113.12	130.04	130.04	−1.3	1.85	170.45	166.38	114.94	131.79	131.79	171.28	141.06	141.06
Hong Kong (58)	448.01	0.1	433.33	297.69	342.22	444.68	0.1	3.18	447.68	436.99	301.88	346.13	444.40	448.01	289.77	299.77
Ireland (16)	257.94	−0.1	249.49	171.39	197.03	229.77	−0.9	3.34	258.12	251.98	174.06	199.57	231.97	282.70	205.44	210.11
Italy (59)	79.05	−0.7	76.46	52.53	60.38	62.63	−1.4	1.61	79.62	77.72	53.69	61.56	63.94	82.71	65.45	61.20
Japan (482)	153.30	0.4	148.28	101.88	117.10	101.86	−1.1	0.75	152.71	149.06	102.98	118.07	102.98	164.82	136.95	145.66
Malaysia (107)	524.92	0.8	507.72	348.80	400.97	514.71	0.5	1.82	520.84	508.41	351.22	402.70	512.01	561.96	425.77	447.51
Mexico (18)	1211.63	0.0	1171.93	805.10	925.53	9809.67	0.0	1.42	1211.63	1182.71	817.05	936.80	9809.67	1237.14	647.81	1092.48
Netherland (19)	274.93	0.1	265.92	182.69	210.01	208.56	−1.1	3.16	274.73	268.17	185.26	212.42	208.83	280.49	219.14	219.80
New Zealand (14)	80.66	0.4	78.02	53.60	61.62	63.24	0.3	4.60	80.31	78.39	54.16	62.09	63.02	85.49	72.27	73.58
Norway (33)	231.56	0.5	223.97	153.88	176.88	201.81	−0.6	2.07	230.41	224.91	155.38	178.15	203.00	243.79	202.78	214.57
Singapore (44)	465.21	1.4	449.97	309.12	355.36	303.18	1.2	1.33	458.61	447.56	309.25	354.58	299.68	465.21	342.37	347.66
South Africa (45)	435.04	−0.6	420.78	289.07	332.31	346.49	−0.8	3.39	437.76	427.31	295.20	338.46	349.31	437.76	301.17	303.74
Spain (37)	164.79	−0.4	159.39	109.50	125.88	155.08	−1.1	3.91	165.40	161.45	111.53	127.88	156.84	168.91	124.10	132.48
Sweden (47)	307.40	−1.0	297.33	204.26	234.81	316.13	−1.1	1.90	310.60	303.18	209.45	240.15	319.64	324.31	232.23	240.32
Switzerland (38)	222.84	0.1	215.54	148.07	170.22	165.85	−1.4	1.80	222.56	217.24	150.08	172.07	168.18	239.55	164.61	164.81
Thailand (46)	193.46	0.7	187.12	128.55	147.78	189.74	0.5	1.97	192.03	187.44	129.49	148.47	188.82	193.46	130.15	145.70
United Kingdom (205)	231.34	0.1	223.76	153.72	176.71	223.76	−0.8	4.15	231.18	225.66	155.89	178.74	225.66	232.23	192.74	193.98
USA (632)	261.28	0.8	252.72	173.62	199.58	261.28	0.8	2.19	259.06	252.90	174.71	200.32	259.06	261.28	196.19	198.19
Americas (779)	238.79	0.8	230.96	158.67	182.40	200.72	0.8	2.18	238.85	231.29	159.78	183.20	199.16	238.79	180.00	180.51
Europe (731)	202.81	−0.1	196.17	134.78	154.92	175.52	−1.1	3.02	203.06	198.21	136.93	157.00	177.52	204.32	169.24	169.24
Nordic (137)	275.13	−0.5	266.11	182.82	210.16	242.35	−0.9	1.82	276.37	269.77	186.37	213.68	244.61	295.02	222.22	231.21
Pacific Basin (833)	166.85	0.3	161.38	110.87	127.45	114.11	−0.9	1.16	166.28	162.31	112.13	128.56	115.10	171.87	145.95	152.85
Euro-Pacific (1584)	181.73	0.1	175.77	120.75	138.81	137.43	−1.0	2.03	181.50	177.16	122.39	140.33	138.80	183.39	156.37	159.47
North America (733)	254.80	0.8	246.45	169.31	194.63	254.20	0.8	2.19	252.76	246.72	170.44	195.43	252.15	254.80	191.87	191.87
Europe Ex. UK (526)	182.82	−0.2	176.83	121.48	139.65	148.61	−1.3	2.38	183.24	178.86	123.56	141.67	150.54	184.61	152.13	152.13
Pacific Ex. Japan (351)	291.91	0.2	282.34	193.96	222.98	256.01	0.0	2.87	291.42	284.46	196.51	225.32	255.90	291.91	222.74	222.74
World Ex. US (1756)	183.68	0.1	177.66	122.05	140.31	141.91	−1.0	2.06	183.53	179.14	123.78	141.90	143.29	184.71	156.72	160.13
World Ex. UK (2183)	205.14	0.4	198.42	136.31	156.70	171.55	−0.1	1.91	204.24	199.36	137.73	157.91	171.78	205.14	166.82	168.88
World Ex. Japan (1906)	237.60	0.4	229.82	157.88	181.50	223.75	0.1	2.53	236.63	230.98	159.57	182.86	223.59	237.60	186.02	188.02
The World Index (2388)	207.48	0.4	200.68	137.86	158.49	178.28	−0.2	2.11	206.64	201.71	139.34	159.77	176.63	207.48	169.20	170.89

Latest prices were unavailable for this edition.

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